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DIRECTORATE-GENERAL FOR HUMANITARIAN AID - ECHO

***“Ex-ante Evaluation of Potential DIPECHO Interventions in
South East Africa and South West Indian Ocean”***

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Consortium led by TRANSTEC in association with ACTED, ADE s.a., BONN INTERNATIONAL CENTER FOR CONVERSION (BICC), CIDEAL, CIVIPOL CONSEIL, DEFENSE CONSEIL INTERNATIONAL (DCI), EUROTEAM, FEMCONSULT, GOVERNANCE AND DEMOCRACY COUNCELLING (G&D-C), PROLOG CONSULT, SPECIALIST GURKHA SERVICES (SGS), SHER INGENIEURS - CONSEILS s.a.

**REPORT ON DIPECHO EX-ANTE EVALUATION MISSION TO SOUTH EAST
AFRICA AND SOUTH WEST INDIAN OCEAN ISLANDS,
JANUARY 23RD – FEBRUARY 23RD 2007.**

‘...And there shall be famines, and pestilences, and earthquakes, in divers places. All these are the beginning of sorrows...’ Matthew 24:6-8, King James Bible.

‘...Rarely do disasters just happen – they often result from failures of development which increase vulnerability...’ Hilary Benn, Secretary of State for International Development, Great Britain.

‘...DG ECHO will continue to focus on the short term dimension of risk management with its DIPECHO programme. This is in line with its mandate to provide emergency relief for the victims of humanitarian crises and to ensure preparedness for natural disaster risks...’ DIPECHO 2005.

‘...A fundamental tenet of emergency management is that “there is no hazard without people.”...’ Unknown

TABLE OF CONTENTS:

Section	Page
Stipulations, Acronyms, and Definitions.....	
1. Executive Summary.....	1
1.1. Layout of the paper	1
1.2. – 1.3. Overview of the Context of Regional Disasters.....	1 – 2
1.4. – 1.9. Rationale for a DIPECHO Intervention.....	3 – 7
1.10. Recommendations	7– 8
2. Overview of the Context of Disaster in the Region.....	9
2.1. – 2.4. Background & Approach.....	9 – 10
2.5. – 2.6. An Exposed Region.....	10
3. Achievements & Needs in DRR.....	11
3.1. – 3.2. Presence & Capacities of Agencies on the Ground.....	11 – 12
3.3. Elements of disaster preparedness in DG ECHO programmes in the Region.....	12
3.4. Other Instruments of the Commission.....	13 – 14
3.5. Working with Governments	14
4. Framework & Conditions for a DIPECHO Programme.....	15
4.1. – 4.3. Justification.....	15 – 18
4.4. – 4.5. Outline Strategy for DG ECHO Engagement.....	18 – 21
4.6. – 4.12. Some Issues & Misconceptions.....	21 – 27
5. Conclusions.....	27

5.1.	Disaster preparedness one part of DRR.....	27
5.2.	Complementarity.....	28 – 29
5.3.	DG ECHO Advantages.....	29
6.	Recommendations.....	29 – 33
Annex A	Summaries of the vulnerable countries visited.....	
Annex B	Some Examples of DIPECHO-Type Strategies in Standard DG DG ECHO Funded Projects in Africa & other best practices.....	
Annex C	List of people, agencies, governmental bodies consulted.....	
Annex D	Itinerary.....	
Annex E	Persons met.....	

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We realise that you all helped us to the very best of your ability and so it may be invidious to single any body out, but, nevertheless without the help of the DG ECHO country representative/technical adviser in Zimbabwe and Mozambique we would have had much more difficulty with logistics and local knowledge. Similarly, in all the countries that we visited we were, unequivocally, supported by the EU Delegations that in some cases went well beyond the call of normal duty. In Malawi, we were grateful for the assistance provided by World Vision, and the District Commissioner who enabled us to conduct visits to the Chikwawa Valley. In Mozambique, the assistance of the Red Cross and World Vision made it possible for us to visit both the Zambezi and Limpopo River Valleys, a feat that did not seem feasible in the short time that was available to us. In Madagascar, we were well supported by CARE who facilitated our visit to some of the drought-ridden areas of the South. In Comoros, we received the, by now, usual, unstinting support of UNICEF and, in Zimbabwe, IFRC and the Zimbabwe Red Cross kindly arranged a field visit for us to the flood-affected areas of Mzarabani. We are grateful for the briefings and debriefings arranged for us both in Brussels and Nairobi as well as all the time that was set aside by individual desks and experts to inform, educate, and alert us to specific issues.

Throughout the region we encountered nothing but considerable cooperation. Meetings were very often arranged at short notice, at a time when for many agencies it was extremely busy, with floods and cyclones physically illustrating the recurrent hazards and risks that prevail in S.E. Africa and the S.W. Indian Ocean Islands and thus the need for strategies to mitigate the effects – encompassing both global approaches of disaster risk reduction and the more immediate needs for disaster preparedness.

Michael Mutale

Peter Holdsworth

SOME STIPULATIONS, ACRONYMS, AND DEFINITIONS

Some assumptions, abbreviations and definitions used in this paper in the context of disaster preparedness:

STIPULATIONS

1. Many papers have been written recently on the need for Disaster Risk Reduction (DRR) and the world is coming to realise how vital this is – at a time when climate change seems to be linked to an increase in natural disasters. All these papers are accessible. This report will not repeat what they have said, keeping to a minimum the replication of the clear and pragmatic reasons for DRR. The report will, however, attempt to rationalize the need for one important aspect of DRR – ‘disaster preparedness’ – in S.E. Africa and the S.W. Indian Ocean Islands.
2. There is an extensive vocabulary for disaster risk reduction, and it often seems to be used in a loose way. There is an attempt at explaining some of the key words and phrases below. The specific mandate for this evaluation referred to ‘Disaster Preparedness’. There will, therefore, be little discussion on such issues as ‘disaster prevention’ or ‘mitigation’ or some of the other issues involved except inasmuch as they directly affect the central theme of ‘disaster preparedness’.
3. There are a series of tables (mostly taken from Source: EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net - Université Catholique de Louvain - Brussels – Belgium), under each country showing the largest disasters that these countries suffer from. These are useful in that they show the scale of various natural disasters but **they do not show** the ‘force’ of such chronic calamities as HIV/Aids and Malaria, which, generally, have a more catastrophic impact.

SOME ACRONYMS:

COSEP	Centre des Opérations d’Urgence et de Protection Civile – Comoros national platform for disaster management
CPU	Civil Protection Unit – Zimbabwe’s national platform for disaster management.
DFID	Department for International Development – Britain
DG	Directorate General
DP	Disaster Preparedness
DPODM	Department for Poverty and Disaster Management – Malawi
DRR	Disaster Risk Reduction

ECHO	European Commission's Directorate General for Humanitarian Aid
EWS	Early Warning System
FAO	Food and Agricultural Organisation (UN)
FEWS-NET	Famine Early Warning Systems Network
GTZ	German Technical Cooperation
IFRC	International Federation of Red Cross and Red Crescent Societies
INGC	The national platform for disaster management in Mozambique
LRRD	Link between relief, rehabilitation, and development
OCHA	United Nations Office for the Co-ordination of Humanitarian Affairs
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UN/ISDR	United Nations International Strategy for Disaster Reduction
WFP	World Food Programme
WHO	World Health Organisation

SOME DEFINITIONS:

1. **'Disaster'**: A damaging or destructive event: an event that causes serious loss, destruction, hardship, unhappiness, or death. (*Microsoft Encarta Dictionary*)

A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceeds the ability of the affected community or society to cope using its own resources. (*UN definition*).

A **'hazard'** may become a **'disaster'**, depending on the degree of exposure of people, infrastructure and economic activities to a physical event or hazard and the vulnerability of those exposed to the hazard or shock. (*DFID definition*)

2. **'Disaster Preparedness'**: In the likelihood of a disaster, the initiatives or proactive measures that can be taken to lessen the impact, mainly through enhancing the resilience or the capacity of the vulnerable population to cope. (*Author's definition for the purpose of this evaluation*).

This involves pre-disaster activities that are undertaken within the context of disaster risk management and are based on sound risk analysis. This includes the development or enhancement of an overall preparedness strategy, policy, institutional and management structure, capabilities, and plans that define measures geared to helping at-risk communities safeguard their lives and assets by being alert to hazards and taking appropriate action in the face of an imminent threat or the actual onset of a disaster. (*UN/ISDR terminology*)

3. ***‘Disaster Response Plans’***: Such plans, based on an analysis of needs and capabilities, identify the strategy, principles, policies and activities that will be pursued to address the situation of those who have been adversely affected by a disaster in a manner that facilitates their early and effective recovery. These should include such elements as continuity of government functions, emergency services or relevant response agencies, emergency funding and public information. (*UN/ISDR definition*)
4. ***‘Disaster Risk Reduction’***: The systematic development and application of policies, strategies, and practices to minimise vulnerabilities, hazards, and the unfolding of disaster impacts throughout a society, in the broad context of sustainable development. (*United Nations Development Programme definition*).

The conceptual framework of elements considered with the possibilities to minimise vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards within the broad context of sustainable development. (*UN/ISDR definition*)

5. ***‘Emergency Response/Relief’***: The **reactive** measures (intervention or assistance) taken to deal with the consequences of a disaster, mainly the preservation of life by providing the basic subsistence needs of the affected population. (*Author’s definition for the purpose of this evaluation*).
6. ***‘Flood’***: In this report the definition for ‘flood’ is the temporary covering by water of land not normally covered by water or water covering a previously dry area; a very large amount of water that has overflowed from a source such as a river or a dam or the coast onto a previously dry area.

‘Flood Risk’ means the likelihood of a flood event of a certain severity together with the estimated damage to human health, the environment and economic activity associated with a flood event of that severity.

‘Flood Warning’ turns a prediction or forecast into information in the form of an action statement. The purpose is to improve safety and reduce damages. This should be done by communicating information to those at risk to take action to improve their safety and reduce damages; to enable individuals and communities to respond appropriately to a threat in order to reduce the risk of death, injury, property loss and damage.

7. **'Hazard'**: The risk of disaster – a natural/meteorological, physical, or man made/induced phenomenon that is potentially very dangerous or could lead to a dangerous or otherwise undesirable outcome; a disaster.
8. **'Resilience'**: The capacity of an individual, a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organising itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures. (*UN/ISDR terminology*)
9. **'Vulnerability'**: The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards. (*UN/ISDR terminology*)

1. Executive Summary:

- 1.1. **The layout of the paper** is as follows: The executive summary in part one, below, provides a précis of the main issues and focuses on the key objectives, which are the justifications for DG ECHO to launch a disaster preparedness intervention; whether to do so in the region of S.E. Africa and the S.W. Indian Ocean Islands, and if so, what shape such an intervention should take; whether, for example, to launch a DIPECHO Regional Action Plan; whether to explore possibilities for a Drought Preparedness intervention, or whether to limit interventions to more coherent mainstreaming. Following this summary, there is a more detailed argument and explanation, which includes details of the current state of hazards, risks, coping mechanisms and vulnerabilities, and the situation with regard to disaster preparedness, current practices, good and bad, identification of gaps and to what extent DG ECHO investments in disaster preparedness could fill some of these gaps or whether they would be better met by interventions outside DG ECHO's mandate, i.e. adequate developmental programming. The last section of the paper is devoted to conclusions and recommendations. After the main paper there are a number of annexes which will provide a summary of each country visited on the mission, a summary of some examples of disaster preparedness identified in some of the countries, the evaluation itinerary, and finally a list of people consulted on the evaluation.

An Overview of the Context of Regional Disasters:

- 1.2. **Disasters Rising in Frequency whilst Resilience Diminishes:** In recent years, some of the countries in the region, such as Mozambique, Madagascar, Malawi and Zimbabwe have been subjected to, on a more frequent basis, the incidence of droughts, floods and cyclones, whose effects have had a negative impact not only on the vulnerable communities but on countries' economies and human development.

In large basins like the Zambezi River, lack of comprehensive flood disposal plans, such as that of dam operations, which are done in isolation and independently, has exacerbated the situation further. During 'low flow' periods, retaining water in upstream reservoirs also contributes to aggravating drought conditions of downstream areas. Erratic water management also adds to immediate and latent health hazards such as cholera and malaria.

Other parts of the region experience seismic activity; Comoros in the form of phreatic volcanic eruptions, which have been happening increasingly frequently, and which pollute the fragile water system with toxic ash; and Mozambique from earthquakes, which are also felt in neighbouring Zimbabwe and S. Africa. In Mozambique, in 2006, four people died in a powerful earthquake that forced thousands of panicked residents from their homes. The earthquake struck with a magnitude of 7.5, a force that in a more densely populated area would be capable of widespread, heavy damage, and severe mortality rates. Fortunately this

earthquake's epicentre was 140 miles away from the nearest city, Beira, although, it awoke people hundreds of miles away in four southern African countries, as far away as Durban on South Africa's Indian Ocean coast. Both forms of seismic activity, although so far not deadly in comparison to some of the activity that has occurred recently in other parts of the world, pose immediate threats to life and, once again, in the longer-term jeopardise livelihoods and economies.

In this environment where high levels of risks and vulnerabilities prevail, where large areas are already weakened by poverty, the HIV/Aids pandemic and poor governance, the impact of any natural disaster is significant and demands attention. **For DG ECHO the key issue would be whether any of DG ECHO's tools that are available for preparedness measures, could significantly lower the risks and increase local and national coping mechanisms.**

- 1.3. **The links between disaster and poverty are clear**, and in the region that was evaluated this is probably doubly so. It is the poorest population segments that have been the worst affected and suffer most from critical threats to their subsistence livelihoods. The capacity to cope, to reduce risk, to build resilience and manage disasters is limited in most low-income countries. One aspect that is often overlooked in disasters, whether big or small, is the amount of damage done to infrastructures and economies both at national level but more importantly, in this context, at local level – often ignored, neglected or unreported.

This element of poverty and the overarching issues of HIV/Aids and governance are vital in the particular perspective of S.E. Africa, because, whilst there may be fewer or smaller sudden onset natural disasters in this region than, for example, in Central America, the Caribbean, or South East Asia, even **small disasters probably have a much greater impact** amongst populations that have been weakened by disease, by drought and by poverty, and lacking in adequate support structures from their governments, and possibly inappropriate ones from the international community. Lack of good governance is a crucial issue in several DIPECHO focal countries and one of the reasons that national coping mechanisms are so weak and risks so comparatively high. A hazard of whatever magnitude becomes a disaster depending on the degree of exposure of people, infrastructure and economic activities to a physical event or hazard and the vulnerability of those exposed to the hazard or shock. The risks can furthermore be exacerbated by poor land use practices and bad governance in general. As an anonymous person said, *'...there are no hazards without people...'* Unfortunately, the reverse, where there is a large, weakened population, who may be exposed to a hazard is especially true, in that a smaller disaster may have much more devastating consequences. Thus, it is not the physical size of the disaster that should determine whether there is a need for disaster preparedness but the resilience or lack of, amongst the population to cope with a disaster that should determine the degree to which it is relevant to invest in disaster preparedness.

Rationale for a DIPECHO Intervention

- 1.4. Whilst DG ECHO or DIPECHO cannot intervene everywhere, and whilst there are undoubtedly severely disadvantaged populations in many countries where DG ECHO does not have programmes, the conjunction of factors, mentioned in the previous paragraphs, creates a **humanitarian imperative** that is probably **the strongest reason for having a disaster preparedness strategy in S.E. Africa and the S.W. Indian Ocean Islands**. It is evident that the populations in the countries selected, Comoros, Madagascar, Malawi, Mozambique, Zimbabwe, are the most vulnerable in the region. Speaking to the exposed populations, however, one would find it difficult to justify a disaster preparedness intervention. Their concept of ‘disaster preparedness’, generally, is ‘preparedness’ to receive food aid or other forms of aid rather than to enhance resilience to deal with the onset of a natural disaster. Whilst any DG ECHO disaster preparedness initiative should examine carefully how to help the communities organize themselves and not contribute to increasing the dependability on outside assistance of a vulnerable population, this mindset is another strong reason why a DIPECHO intervention should be community-based. The advantage of other ‘classic’ DIPECHO interventions is that where they are community-based they have often succeeded in creating a ‘multiplier’ effect by changing the perception of the local community. This has resulted in much better sustainability by the communities themselves. In many cases, a first step would be awareness-raising, participatory workshops (as is currently done by many of the local Red Cross societies) to identify risks, opportunities for building coping capacities and identify realistic mechanisms that can be utilised for this purpose. Disaster preparedness components that are integrated in relief decisions have the advantage that communities are often very sensitive to engagement as they have often recently experienced the devastating effects of not being prepared for sudden-onset disasters. Drought preparedness tackles slow-onset disasters usually involving very complex issues to find solutions for and any DG ECHO intervention in such cases should be carefully evaluated against the experiences that development actors have had identifying why a DG ECHO intervention would make a difference. A far-sighted DG ECHO intervention, however, in Ethiopia in 2001, following the drought of 2000, that combined many elements that could be described as DIPECHO-type demonstrated how effective it was in 2004 when drought affected the region again, but for which the community was much better prepared.

The element of awareness-raising, however, is, central. Many communities in the affected area struggle to meet their needs on a day-to-day basis and so disaster preparedness activities have to be pragmatic and shown to fulfil specific, vital, needs. Nevertheless, as with awareness raising in HIV/Aids, which whilst initially slow to take off subsequently demonstrated what differences could be made, awareness raising for disaster preparedness will ultimately be absorbed by the communities.

1.5. Responsiveness to and Awareness of Disaster Preparedness: In this vulnerable region there are signs of increasing responsiveness to the need for disaster preparedness at national level, and some institutions such as INGC in Mozambique, COSEP in the Comoros, and CNS in Madagascar (all the national disaster management platforms) have improved greatly since the impact of the floods and cyclones of the early 2000s, and have become much more active – although, generally, still lacking in capacity to decentralize much beyond the capital cities to the risk areas in times of crisis.

This lack of decentralisation even amongst the most advanced disaster management platforms in the region means that at ‘grass roots’ level the improvements are not felt. Thus, whilst governments may be able to help more quickly in reaction to a disaster, that help, in some ways, may be too late for some parts of the affected population. This is a fundamental reason for a) a bottom-up DIPECHO intervention (because, for example, Delegation programmes tend to assist at the government level) and b) why a DIPECHO intervention should be community-based. The increase in capacity at central level has also been done with much support from donors and international agencies, and it remains to be seen how sustainable the systems are without their financial and technical support.

The UN and NGOs (mainly INGOs) and especially the Red Cross in the region also show much more awareness of the concept of disaster preparedness, although there is a slight disconnect between this awareness and integration into programmes on the ground and many of the so-called ‘disaster preparedness’ projects (whether they are ‘stand alone’ or include elements of disaster preparedness as mainstreaming) on the ground hardly justify the description of disaster preparedness programmes; rather they are a continuation of the same old tired development projects that have been implemented by the concerned NGOs with a few new disaster preparedness phrases added to the proposals. Whilst there is little doubt that many of the NGOs are capable and, indeed, enthusiastic about embracing disaster preparedness projects, if DG ECHO were to intervene, careful assessment, evaluation, discussion, and rigorous follow-up would be needed, not only by the NGOs themselves, but also by the DG ECHO technical adviser.

In the specific area that this evaluation has examined, more concrete actions need to be taken, as opposed to spoken about, (i.e. specific funding for disaster preparedness at levels, such as at community, by donors, with implementation by partners in the communities) in Disaster Risk Reduction (DRR); that DRR, and as part of it, ‘disaster preparedness’, would contribute more to saving lives than emergency response – whilst continuing to acknowledge, however, that the two are **not** mutually exclusive and that no matter how well developed disaster preparedness systems are, there will always be a vital role for emergency response. DG ECHO responds and should at the same time assist in preparing better for disasters – be it man-made or natural disasters. The situation in this region provides evidence that ECHO's dual approach of 1) responding to disasters whilst 2) being ready to engage in assisting communities and institutions to cope

with disasters is pertinent and appropriate, whilst at the same time acknowledging that, with an investment of some €40 million, ECHO's most important contribution is its relief.

- 1.6. Lack of DIPECHO strategy in Africa; an anomaly?** It is, perhaps, an inconsistency that DG ECHO has not yet invested more in disaster preparedness in this region. Not only does the susceptibility of the region lend itself to magnifying effects of even the smallest disaster (many of which are unheard of or go unreported) but, from governments or from international agencies, there is a distinct lack of proactive support systems either. Many of the disaster preparedness approaches are top-down approaches, which have not yet filtered down to the communities that are most affected. It is also possible that with the lack of decentralisation that exists in many of the vulnerable areas the filtering down effect may not happen for some time. Thus a DIPECHO intervention could bring some additional strengths to regional disaster preparedness strategies by filling gaps at the 'grass-roots' level. A successful DIPECHO strategy could also serve as a pilot scheme by demonstrating its effectiveness (such as is happening with the UNICEF project in the Comoros).

Although DG ECHO incorporates, as part of its mandate in humanitarian work, an element to mitigate the effects of disasters through disaster preparedness, it is primarily an emergency response instrument. Nevertheless, if looked at from a different perspective DIPECHO is, ultimately another tool for dealing with disasters, and for providing effective relief. DIPECHO has stated that *'...planning ahead for disaster is a cost-effective way to help people since it reduces emergency recovery and reconstruction expenditures. A successful policy would comprise of both short-term disaster preparedness measures and long term development policy...'* S.E. Africa where the evaluation took place is surely a region where these aspects could come together most effectively. As just one instrument of the Commission, which in Africa has many other tools for contending with what are, ultimately, longer-term structural issues, a DG ECHO disaster preparedness intervention and the extent to which it should become involved in disaster preparedness provides added value; would demonstrate that DG ECHO could make a difference; and prove that DG ECHO, itself, would benefit from preparedness interventions – such as beginning, possibly, to change the perception of emergency relief or by showing that proactive measures of a disaster preparedness strategy for the region should be regarded as an additional, essential, tool for a major humanitarian donor. By engaging at community level an intervention could, additionally, address some peripheral issues, particularly the whole problem of dependency – engaging with communities to teach them that they can do something themselves to be prepared.

- 1.7. Delegation Approaches:** During this evaluation, the Delegations were strong in emphasising the mainstreaming of disaster preparedness in many of their programmes. They would point to the way in which in flood prone countries such as Mozambique they are upgrading their roads to make them more flood proof, thereby enabling access during times of severe flood. They would point out the

measures that they are taking in crop-diversification to mitigate the effects of drought. They would suggest that such strategies as the strategic grain reserve in Malawi are a form of disaster preparedness. They would point out that strategies such as the EWS that they have set up in Madagascar and which is still running four years after the Delegation withdrew from food aid programmes is an effective disaster preparedness measure. The Commission has also been involved in some regional disaster preparedness measures such as EWS for the SADAC river systems. They wonder whether there is a need for ECHO, which, in their eyes does efficient and speedy work as an emergency response organisation, to become involved in the field of disaster preparedness. Having said that most of the Delegations to whom we spoke admitted that their approach was very much a 'top-down' approach, and it is unlikely that they would disagree with a complementary, community-based DIPECHO approach

- 1.8. The Need Exists:** This evaluation found that there is a need for preparedness interventions – and in particular the 'bottom-up', stand-alone community-based interventions, for which DIPECHO is known, as well as the more 'global' approaches of other longer term development actors such as WB, UNDP and the EC Delegations, whose impact takes time to filter down to the vulnerable communities. Disaster preparedness should be promoted as a culture and DG ECHO interventions can therefore serve not only as a useful catalyst for the longer-term projects of the Delegations and other development donors, but also to stress the argument that different approaches are not mutually exclusive but necessary for effective disaster management. Furthermore, the precedent has already been set by DG ECHO disaster preparedness interventions in other regions of Africa and the world. For example, in Africa alone, although not falling under a DIPECHO mantle the drought decision in the Horn of Africa is, effectively, a disaster preparedness decision. Many of the DG ECHO projects set up in Ethiopia in 2001 after the drought of 2000 were effectively DIPECHO type projects, and proved their worth when drought struck the region again in 2004. Many other standard DG ECHO projects in this region could also be described under the definition of disaster preparedness (see paragraph 3.5.).
- 1.9. There is as much justification for a DIPECHO project** in this region as there is for any of the other parts of the world in which DIPECHO has projects, given that a) the physical size of the disaster is less important than the degree of impact that it has on the vulnerable population, b) currently, the lack of coping mechanisms in the region that can help develop the resilience of the population, c) lack of support mechanisms from government institutions for exposed communities and d) there is great potential for symbiosis with projects that DG ECHO is already implementing for chronic humanitarian situations in Africa. As well, in a region such as this where possibly there are sometimes years between DG ECHO's emergency responses, but where people nonetheless suffer from an undue degree of humanitarian grief, a DG ECHO presence whether in the continuing form of the DG ECHO country representative or as drought preparedness/DIPECHO staff could contribute to prevent emerging emergencies to have disastrous impacts, and in itself could be a disaster preparedness measure. It is also important to be able

to report to say that certain assistance is not required, as well as being able to indicate what aid is needed. In other words there needs to be a DG ECHO witness in a fragile region.

Recommendations: (*detailed recommendations can be found in chapter 6*)

- 1.10. A DG ECHO disaster preparedness intervention in this precarious region is recommended.** A culmination of the hazards of the region, drought, cyclones, seismic activity, and disease together with the growing vulnerabilities of the populations as well as their increasing dependency on aid, on top of the aggravating factors of poor governance, poverty, and HIV/Aids are sufficient justification for a disaster preparedness intervention. An initial intervention should be modest, taking into account the untested capacities of the partners in the region, and should probably limit itself to the three countries most exposed to sudden onset natural disasters – Mozambique, Madagascar, and Comoros – and limiting itself to tackling flooding, cyclones, volcanic and seismic activity, without totally excluding the possibilities of involvement in drought or preparedness against the outbreak of disease. It is felt that DG ECHO is also well-placed to intervene given its background and experience in raising awareness and improving capacities within communities, as well as having extensive experience of humanitarian programmes in this region of Africa.

Nevertheless it is vital that a DG ECHO intervention ensures that sustainability is built into any project through the concept of community ownership or interest. DG ECHO and several of its DIPECHO partners in other parts of the world have demonstrated that they have a strong record of advocacy and so consideration should be given to projects that encourage advocacy both at national level and community level in the form of providing expertise and technical advice for enhancing the national platforms for disaster management and through raising the profile of overarching concerns such as evacuation plans, communications, shelter and protection.

It has to be acknowledged that much is being done by longer-term donors on a grander scale but this is often a top-down approach. Any intervention by DG ECHO should ensure complementarity both with other DG ECHO interventions and those of other development actors – as part of the overall commitment to LRRD – as well as harmonisation with other Commission programmes. The promotion of ‘mainstreaming’ should be part of any intervention in disaster preparedness and this aspect should not be neglected by DG ECHO.

Whilst it is recognised that disaster preparedness against disease outbreak could be included in a DG ECHO intervention this aspect should probably be the content of a separate, specialised decision. There are times, as the outbreaks of cholera in Angola 2006, Malawi 2004 and 2006, and Zanzibar in 1998, when having a separate disease ‘preparedness’ decision may have been of great benefit.

Management of a DIPECHO intervention would probably require the enhancing of the DG ECHO office in Harare with a DIPECHO expert, who should, nevertheless be an integral part of that office, where the Head of Office would be the present incumbent. DIPECHO support should be provided not only by the relevant DIPECHO and geographical unit desks but by the RSO/ECHO 04 in Nairobi as well.

This report should be followed up by a careful analysis from the DIPECHO representative with input from the DG ECHO country representative, if the recommendation for a DIPECHO intervention is taken up. It would be important for a comprehensive identification mission to be undertaken; an assessment that will be able to spend more time carrying out a full evaluation of risks, coping capacities and vulnerabilities in locations where DG ECHO may intervene. Likewise this should be done with the regional DG ECHO correspondent together with the relevant desks and the RSO in Nairobi, although it will, obviously, be up to DG ECHO to decide who should do this. The most important appraisal will be on the ground to determine the abilities and capacities of potential partners.

Finally, prior to any firm commitments or formulation of strategies, DG ECHO should liaise closely with other donors, who are working on disaster preparedness and DRR issues such as DFID, WB, UNDP and lead DG ECHO NGO partners in DP/DRR who are present in this region.

2. Overview of the context of Disaster in the region

Background and Approach:

- 2.1. **Background:** The ex-ante evaluation mission for a potential DIPECHO intervention in S.E. Africa and the S.W. Indian Ocean islands took the form of a general (albeit brief) assessment on the state of disaster preparedness and current status and the feasibility of possible interventions in countries in this region, specifically, Comoros, Madagascar, Malawi, Mozambique and Zimbabwe. With the time available, the team attempted to consult as wide a selection of people and agencies as possible, ranging from the affected population to government institutions and aid agencies both national and international and including the UN and Red Cross.
- 2.2. **Approach:** Consultations took the form of initial consultations with DG ECHO in Brussels and some meetings with relevant organisations and people in Geneva. The most important part of the approach was the field work in the 5 countries covered by the evaluation. This took the form of consultations with key personnel from agencies, government institutions and experts at capital and regional level, followed by visits to some of the affected areas and engaging in discussions with communities in each country. These visits also included talking to agencies working on the ground. By consulting at both ends of the spectrum and with several different types of stakeholder it was possible to triangulate much of the information that was received and develop a coherent picture of the reality on the ground as opposed to what was merely being expounded on a more theoretical level in the capitals.
- 2.3. **Appropriateness of Timing of Mission:** With the evaluation taking place at the peak of the cyclone season and with the ongoing emergencies that the region was consequently suffering from, including a grumbling volcano in Grande Comoro, it was, possibly the right time to undertake the mission, allowing the team to see, at first hand, the disaster preparedness measures that were in place or impeding a fast and appropriate response. Both of the team members, with their knowledge of the geography of the region and their experience with some of the sectors, and emergencies from the past, were able to form reasonable judgements as to the state of disaster preparedness, and the major gaps in coping mechanisms at community, district, national and regional levels.
- 2.4. **Methodology:** The evaluation team went to much trouble to try to understand to what extent disaster preparedness is a concept that is understood well by all potential stakeholders – in other words; for the capital city exponents was the concept reaching grass roots level, were national disaster management platforms being decentralised, what were the most urgent priorities in disaster preparedness for the country (most of all for the people that needed it)? For the agencies were they doing valid assessments, monitoring, and follow up to see what impact

disaster preparedness concepts/projects were having? For the affected populations, were they able to see disaster preparedness beyond the concept of merely preparedness of themselves to receive a food aid delivery?

It was necessary, therefore, for the team to consult at all levels. The team would have liked to have spent more time in the field, but it is hoped, nonetheless, that the balance between time speaking to the vulnerable populations and time spent talking to the agencies who can help them will produce a fair reflection of what may be needed in respect of disaster preparedness. If DG ECHO decides to invest in Disaster Preparedness on the basis of this appraisal, it is important that an additional and more detailed identification mission is undertaken; an assessment that will be able to spend more time in carrying out a comprehensive evaluation of risks, coping capacities and vulnerabilities in locations where DG ECHO may intervene.

An Exposed Region:

2.5. The region of South East Africa and the South West Indian Ocean islands is highly and frequently susceptible to both human-induced/exacerbated and natural disasters, caused by meteorological irregularities and extremes. The aggressive movement of moisture and winds, blown from the Indian Ocean tracking over Madagascar, through the Mozambican channel, propagates cyclones and tropical storms in the S.E. Africa and S.W. Indian Ocean region, which in turn aggravate an already existing propensity to flooding. Seismic activity in the Rift Valley where it extends down into this region as well as volcanic activity in the Comoros adds another hazardous element to the region. In addition, parts of the region are already relentlessly affected by drought which along with many other factors is intensified by inconsistent meteorological conditions, by disease, especially HIV/Aids and malaria and with a growing susceptibility to water-borne diseases such as cholera. The countries that were visited, had been pre-selected by DG ECHO as countries that are prone to natural disasters and included Zimbabwe, Malawi, Mozambique, Madagascar and Comoros Islands. The timeframe did not allow for visits to other countries in the region where, recently, natural disasters have also occurred; flash floods and cholera in Angola, and flooding in Namibia.

2.6. Cautions: Although the occurrence of natural disasters in the region appears to be on the rise, one should be a) wary of using 'global warning' as the catch-all reason for this trend, bearing in mind that many of the so-called 'natural disasters' are very often caused or exacerbated by poor natural resources management practices, lack of appropriate governance systems and alternatives (a clear example would be some of the flooding in Zimbabwe and Malawi where much of it is caused by the silting up of river beds, which, in turn, is caused by lack of regulation or maintenance, or by intensive farming along the river banks leading to soil erosion) and b) many of the recent natural hazard events may not necessarily be unpredictable. The impact of some of these natural phenomena could probably be minimised if Early Warning Systems (EWS), in the region, were designed, respected and utilised in a manner relevant to local, national and

regional responses. In other words the EWS have to be modelled in such a way that the data they provide translates into useful information for the vulnerable populations, and the vulnerable populations, in their turn, are open to try to benefit from such systems (i.e. whether they can balance their receptivity to beneficial ideas against their cultural traditions) to limit the negative impact of the hazards they face or may well face.

3. Achievements and Needs in Disaster Risk Reduction

3.1. Presence and Capacities of Agencies on the Ground, Standard Responses¹: It is clear that there are many agencies in the region that are aware of disaster preparedness (and aware of ECHO's DIPECHO projects in other regions). Just some of the agencies in the region that the evaluation team met², which do have projects that are either 'stand-alone' disaster preparedness projects or which mainstream disaster preparedness into their other programmes, include, in no particular order:

World Bank	An evaluation team was examining a number of disaster preparedness projects in 5 different countries at the same time as ourselves	IFRC and Red Cross	Proactive in DP, looking at many elements including pre-positioning, awareness raising, training of volunteers within communities
CARE	Many specific programmes in places such as Madagascar, (water, shelter, awareness, food security). Nothing specific, in some of the countries, but about to encompass DP in their country strategies	UNICEF	Multiple strands of disaster preparedness in their programmes ranging from nutritional, to preparedness against disease outbreak (cholera) and including construction of storm proof shelters
Concern	Community-based nutritional surveillance in countries such as Malawi.	GTZ	Community-based EWS in Mozambique – Buzi river system.
WHO	Zimbabwe: Specific preparedness interventions in order to be able to adequately and effectively respond to the cholera epidemic should the need arise. Includes the pre-positioning of medical stocks.	OCHA	Zimbabwe: Mainstreaming DRR and DP into joint strategy documents including Consolidated Appeals. Provision of technical support to the CPU in hazard mapping for DP planning
WFP	Pre-positioning, Food Security, Logistic preparedness	World Vision	Elements of DP in many of their programmes in Mozambique.
OXFAM	Not consulted closely but known to have disaster preparedness elements in some of their projects in the region.	FAO	FAO is attempting to alleviate the effects of future drought in the South of Madagascar through pre-emptive seed distribution of drought resistant varieties.
UNDP	The leading agency in disaster preparedness for the UN.	SIRSA	Madagascar: Drought EWS
CUAMM	Mozambique: Cholera preparedness	French	PIROI

¹ For greater detail see Annex B.

² There are probably many more agencies with DP elements in their programmes that the evaluation team did not meet.

- 3.2.** During the evaluation, although many of the agencies consulted were aware of disaster preparedness, or welcomed initiatives in disaster preparedness, and often explained that they had integrated disaster preparedness into their projects, and did, indeed, insist that they have the capacity for implementing disaster preparedness projects, all of this was not entirely evident on the ground. Some of the drought mitigation projects that were seen in the field, whilst admirable in concept, are less impressive in practice, displaying a lack of serious effort on the part of the agencies to analyse and target the needs carefully, resorting to easy answers. They would say that it is a lack of support from the donors that enfeebles their projects, but what was seen in this evaluation mission did not indicate that. Whereas many agencies would like to receive additional funding for disaster preparedness to bolster the funding that they receive for other development projects, much of what was seen in the field demonstrated ‘tired’ thinking, towards such issues as drought where the standard response seemed to be *‘...drought equals a deficiency in water, therefore drill another borehole, or rehabilitate an old borehole or set up a water committee when all the evidence pointed towards a lack of success to date...’* It seems, for example, that the extent of assessment, in some cases, amounted to consulting the District Commissioner or equivalent, asking him whether any boreholes needed rehabilitating and then accepting his list (of favourite places) without investigating much further. In one case an agency, normally well versed in emergency response and disaster preparedness was receiving funding for the rehabilitation of a borehole under an urgent drought mitigation response, and yet the borehole in question had been unworkable for ten years, prompting the villagers to seek water elsewhere. This is hardly an effective well-considered emergency or disaster preparedness solution. In some cases, where the agencies became lost on the way to showing us projects, it was questionable whether they had ever visited the site of the project.
- 3.3. Elements of Disaster Preparedness that already exist in DG ECHO projects in the region:** Many DG ECHO projects that already exist in this region include components/aspects of disaster preparedness. For example, when Mt. Karthala in Comoros erupted in 2005 the majority of the project that DG ECHO funded for UNICEF was to cover the water cisterns. This part of the project, which was originally intended to be an emergency response, unintentionally became a proactive measure, so that when Karthala erupted again last year, the population whose cisterns were covered were protected, and those that weren’t suffered. The simple measure of covering the cisterns is a good example of an emergency response activity that also serves as preparedness. A second example would be some of the community-based nutritional programmes in Malawi, which were implemented by Concern and CARE, which were, in some respects less of a reactive measure to the immediate problem, but were, with their emphasis on developing community-based early warning systems, more of a proactive measure. Other examples would be the funding of WHO in Zimbabwe and

UNICEF in Malawi for preparedness against outbreaks of cholera., mainly through the pre-positioning and stockpiling of cholera medication – an essential requirement in a country, like Zimbabwe, where medical support structures are crumbling and in Malawi where they have not yet developed the capacity to respond quickly to a cholera outbreak. Yet another example would be the funding of OCHA specifically for disaster preparedness in Zimbabwe, where additionally they attempt to enhance the capacity of government agencies. In this situation they are involved in; facilitation of the development of an inter-agency contingency plan; mainstreaming disaster risk reduction and preparedness into joint strategy documents including Consolidated Appeals; the provision of technical support to the CPU in hazard mapping for disaster preparedness planning; the development of preparedness plans for pilot districts together with NGOs and CPU, and the facilitation of training for Provincial and District Civil Protection Committees and NGOs on disaster preparedness planning

In some cases and countries in Southern Africa, where often the emergencies are less clearly defined, and where it is obvious that there is limited emergency response capacity amongst agencies to respond with emergency relief in a standard DG ECHO response method, (which seems to be increasingly the case where agencies are more attracted to development funding), then rather than give up hope of being able to execute an emergency response, perhaps it would be sensible to examine the opportunity for initiating a disaster preparedness response – such as happened, fortuitously, in Malawi with the therapeutic feeding programmes.

- 3.4. Other Instruments of the Commission:** Most of the EU Delegations in the region, who were spoken to in the evaluation, questioned the value of a DIPECHO intervention, when 1) in the case of an emergency they found it easy to call for the assistance of ECHO, which whilst not a disaster preparedness measure, through ECHO's speedy and efficient response, certainly alleviated some of the effects of a disaster, and 2) in respect of disaster preparedness, their much larger development programmes did much to mainstream disaster risk reduction and disaster preparedness (for details see paragraph 1.5 and 3.2). In this context, they would point to their agricultural policies where crop diversification, for example, in Malawi was making inroads into the chronic drought problems; where the concept of the strategic grain reserve could be regarded as a disaster preparedness measure; where roads that the Delegations were commissioning were being upgraded to make them more 'flood-proof' through raising their levels, putting in better drainage, more culverts and bridges; where in much of the Southern African region the EU had invested in sophisticated early warning systems (EWS) both against flooding and drought (in Madagascar the SIRSA/SAP EWS is still being funded and operating in the South, 4 years after the Delegation withdrew from food aid there). The argument against these EWS is that they warn the Delegation and the aid agencies, who, therefore, provide aid reactively, but they do not actually provide a solution for the communities themselves.

The evaluation mission found, however, that, whilst in principle in the long term, the mainstreaming of disaster preparedness in the way that the Delegations are doing should be the most effective system, there is a disconnect between the ‘cosmic’ implementation of these projects and the impact that they have for some of the most vulnerable communities. This goes back to the issue of the way in which the delegations tend to work at higher levels and so although they may strengthen the capacity of government agencies in disaster preparedness, the lack of decentralisation means that these benefits do not reach the affected populations in the short term. Thus, there is definitely room for a ‘bottom up’ approach such as would be implemented by a DG ECHO community based disaster preparedness strategy. The strategy of the Delegations and that of DG ECHO would not be mutually exclusive, but should be complementary.

3.5. Working with Governments: ECHO’s mandate does not foresee that it works extensively with governments for many good reasons. Nevertheless, in the case of disaster preparedness, a degree of liaison is essential for a disaster preparedness strategy – in particular with local authorities. This is important not only from an advocacy point of view, but from the point of view of local ownership, the demonstrative nature of most DP interventions and for reasons of sensitisation and capacity-building, and, perhaps, more importantly from the point of view of a sustainable approach. For any disaster preparedness strategy to have longer-term impact, it has to be hung on the larger frame of a national contingency plan, and this has to be the responsibility of whatever national disaster management platform the government sets up, which in turn means that there has to be a degree of liaison with the government and its disaster management institutions. One also needs to take into account that governments often tend to ignore communities and in particular certain ethnic/excluded groups. This was the case in almost all of the countries that we visited, where there was a perception that certain groups were marginalised, and these were often the groups most in need of disaster preparedness assistance.

3.6. Working with Communities: As has been frequently emphasised in this report there is a need to work with communities. So much of disaster preparedness revolves around the vulnerability of the communities, and reasons why they are vulnerable range from neglect by the government to intransigence amongst the communities themselves. There is an obvious need not only to advocate on behalf of vulnerable communities with the governments, but at the same time there has to be a change of mindset from the within the communities, so that even if they cannot be encouraged to adjust their livelihoods (which after all is a major step) away from vulnerable areas, they can change their attitudes towards living with hazards. IFRC and some of the Red Cross branches are strong in capacity building to deal with hazards, and this is the sort of activity that a DG ECHO intervention can support, with the proviso that the community ultimately has to take ownership, that if there is no longer a local Red Cross representative that will not leave the community stranded. Mapping and assessing the vulnerable areas is another aspect that requires many levels of involvement including community level (and is another aspect where DIPECHO has shown that its programmes are

beneficial). Some vulnerable areas are well-known in the region, but at the same time there are many changing areas – especially when cyclones are the hazard – and these are less easy to forecast. Nevertheless more can be done in this respect, not least of which is to improve community based EWS.

There are gaps in such aspects of disaster preparedness as local capacity building and training, advocacy and awareness raising, institutional strengthening at local level, risk and vulnerability mapping, education, research and dissemination. These should be encouraged in any DIPECHO intervention, but, capacity building, training, and awareness raising require considerable involvement at local level and for this rigorous monitoring and follow up is required, not only by the agencies that a DIPECHO intervention may fund, but from the DG ECHO representatives themselves.

4. Framework and Conditions for a DIPECHO Programme.

Justification:

4.1. Disaster Preparedness Rationale for DG ECHO in Africa? Some may question whether the concepts for DRR and disaster preparedness are simply new ways to describe old problems; whether, ultimately, the whole point of development aid and the reason for development donors and agencies to be present in developing countries, originally, is to help countries to reduce the impact of the problems from which they were suffering to enable them to ‘develop’; whether, therefore, introducing the concept of DRR is not just a new ‘buzz’ phrase or smokescreen to re-orientate development aid and cover the failures of the past. It has been noticeable during this evaluation how much tired thinking there is on issues such as drought, water, food security, health and livelihoods; that whilst it has been identified that these are key concerns, approaches for dealing with them are lacking in impact. It was also interesting to note that many agencies admitted that many of their concepts had not worked. **The real emergency should be to implement more effective development programmes,** which should 1) integrate risk reduction and disaster preparedness, by mainstreaming them into development and humanitarian policy of such agencies as the European Commission and DG ECHO – something that is starting to happen, which should 2) radically reduce the need for disaster preparedness. On a global scale there should be four strands to any disaster preparedness policy which should be:

- i. Mainstreaming & Advocacy:* At all levels of the EC and ECHO, DRR should be an automatic consideration for all humanitarian policy and development planning, in the same way that HIV/Aids should be,
- ii. Improve Capacity at National and Regional Levels:* Strengthening the capacity of national and regional platforms to mitigate risk; improve disaster management; and decentralize capacity to do so,

- iii. **Implement programmes from ‘bottom-up’** as well as top-down approach. It has to be accepted that it may take governments time to be able to take complete responsibility for DRR strategies and in the meantime, more has to be done to strengthen the resilience of vulnerable communities. This is best achieved through community level awareness, training, capacity building, and empowerment. It is this that is DG ECHO’s strength
- iv. **Follow-up:** More effort towards ensuring that projects are sustainable or rather ‘catch on’ with the communities, through the proper measurement of the impact of the programmes, through regular monitoring and assessments and through developing local capacity.

4.2. Adequate disaster preparedness? In the region that was assessed, some of the emergency problems may not be so instantly big that a standard DG ECHO emergency response is warranted, but the chronic humanitarian situation and lack of disaster preparedness aspects are on a scale where a DIPECHO intervention might be seen as far too small to have much of an impact. Although mandated to do DP, DG ECHO is commonly perceived and acts as a relief donor. DP activities amount to less than 5% of the overall budget. The question is therefore how much more DP work DG ECHO should take on, where and how (DIPECHO, drought preparedness, mainstreaming)? The evaluation considered that more disaster preparedness work should be conducted by DG ECHO. This is similar to the ambivalent situation that DG ECHO faces with regard to the HIV/Aids pandemic. The increasing occurrence of disasters threatens to completely undermine sustainable development and waste all the trillions of euros, dollars, pounds and yen that have been spent, and at the very least will render useless all attempts to achieve Millennium Development Goals in this region. So... if more DP is not implemented, we risk having more humanitarian crises in this region

This seems so obvious that it is astonishing that much more is not being done to re-orientate development projects to mainstream this overarching issue. In the context of discussing possible DG ECHO engagement in disaster preparedness, the Head of the EU Delegation in Malawi, pointed out that they had been *‘...so pleased with the quick response of DG ECHO in 2006, the appropriateness of their emergency programmes and the efficiency and professionalism with which they were executed that it was sufficient to know that DG ECHO could be called on without feeling the need for a DIPECHO project specifically within Malawi...’*

This, however, was not the view of most of the UN agencies, Red Cross and NGOs that we spoke to in the region who consider that DG ECHO investments in disaster preparedness would be fundamental. One always has, however, the cynical thought at the back of ones’ mind that many of the NGOs and UN agencies are eager to receive additional funding for whatever purpose and through whatever source.

4.3. Reasons why DG ECHO should engage in DP: With the precedent set that there are already DIPECHO programmes established in 6 other highly disaster prone regions in other parts of the world, and that DG ECHO has recently invested in drought preparedness in the Horn of Africa and the Sahel, it is an anomaly that there are no investments from DG ECHO in a region such as S.E. Africa and the S.W. Indian Ocean Islands, which is facing recurrent hazards and has a high level of vulnerability. There are, a number of reasons why **some form of disaster preparedness strategy should be considered in this region**, and at the same time such a strategy can be complementary both to ECHO's relief work and developmental programmes of other donors. Some of the DG ECHO emergency response programmes that are already being implemented could, in fact, include DP components – a good example is the community based nutritional surveillance programmes in Malawi, the support to OCHA in Zimbabwe (see Annex B for details), the covering of water cisterns in Comoros. As in any other country or region it would be pretentious to think that DG ECHO interventions would be the complete answer for disaster preparedness in the region when considered against the background of much larger investment brought in by development donors, but DG ECHO has many advantages which can greatly enhance the lesser amounts of funding:

- i. DG ECHO is already heavily involved in humanitarian aid programmes*, in Africa, often dealing with chronic situations, and there is strong encouragement for moving up the scale of LRRD. Disaster Preparedness interventions fit this strategy.
- ii. DG ECHO has long-standing expertise in community-based DP* which means that it can implement programmes with communities much more quickly than can be done by agencies that have to work entirely through governments in African countries, where poor governance is a contributory factor,
- iii. The development agencies work through governments.* They may be able to achieve much more in the long-term with well thought out projects, but they have to, generally, commit much more money, which becomes more expensive if the projects fail. DG ECHO with its speedier methods of funding does not have to commit itself for so long, and can at the same time begin to see whether there is an impact or not. Thus, DG ECHO's projects can be much less expensive and can act as a catalyst or as pilot projects for other actors to engage in longer-term DRR.
- iv. ECHO's lighter weight systems* enable its technical advisers to be more flexible and mobile and work much more closely to the ground. DG ECHO expertise deployed in this region could in itself be an advocacy and capacity-building tool (a situation that is already beginning to occur in some regions where DG ECHO implements disaster preparedness projects and even where they don't).

- v. *Advocacy and Visibility* is possibly not a good reason on its own for implementing a disaster preparedness strategy, but a) **visibility is important as an advocacy tool, and advocacy is badly needed for disaster preparedness**, particularly in the S.E. Africa region where limited government intervention, to date, needs to be fostered and bolstered, and b) it is important to demonstrate that DG ECHO is a ‘thinking’ and ‘concerned’ emergency response donor, and in these days when there is so much encouragement for disaster preparedness it would seem strange if DG ECHO did not heed this. It is also well documented that previous DIPECHO interventions have brought with them almost disproportionately large amounts of visibility. The visibility aspects not only benefit DG ECHO but have a multiplier effect by raising awareness. Thus the visibility aspects are largely only beneficial, although it would be dangerous to consider that because visibility aspects have been implemented a proper disaster preparedness project has been implemented.

DG ECHO has many comparative advantages that would allow a DIPECHO approach in S.E. Africa and S.W. Indian Ocean Islands to not only benefit the vulnerable communities, but to encourage other donors to get involved. DP interventions, whether related to cyclones, flooding, seismic activity or possibly in drought or disease, would certainly not be inappropriate. It is in line with a more radical approach to the way in which humanitarian problems are resolved. It may also be appropriate for ECHO, as a, now, well-known and well-respected, humanitarian donor to demonstrate that it is committed to address some of the underlying causes of disasters and their disastrous impact and promote resilience and help to self-help to examine other solutions towards reducing humanitarian distress and aid dependency, whilst at the same time, by having a programme in the region, giving DG ECHO a position of strength from which it can advocate on the grave humanitarian situations that are developing in the region.

Outline Strategy for DG ECHO engagement in disaster preparedness in S.E. Africa and S.W. Indian Ocean Islands:

- 4.3. **General Concept behind an Intervention:** A DG ECHO engagement in disaster preparedness in the region should, initially, at least be modest in what it expects to achieve. In view of the considerable amounts of money that are already spent on development aid, the chronic problems that already exist, and the extensive and wide ranging needs that there are for disaster preparedness in a region where government support is minimal and where aid dependency is high and survival a daily struggle, it cannot be expected that ECHO’s investments in DP would resolve all disaster preparedness problems in the region. The concept for a DG ECHO disaster preparedness strategy in S.E. Africa and the S.W. Indian Ocean Islands, should be that it is 1) an imperative for any emergency donor in a region that is so prone to disaster, 2) a catalyst for longer term projects from other donors, 3) to give the Commission (Delegations) in the region a focal point for disaster preparedness, 4) to give ECHO, as an emergency response agency, additional leverage in an area that has a major impact on emergency response, 5)

generally to make use of the advantages that DG ECHO has to offer – its speedier financial decisions, its ‘field’ network, its community-based approaches and the fact that it is not constrained by working with governments.

DP interventions should focus on unpretentious carefully assessed and targeted strategies that concentrate on vulnerable populations, which do not overlap with other more global approaches of the longer-term donors, but could, nevertheless act as a catalyst for development instruments of the Commission.

- 4.4. Key elements for determining shape of strategy:** If it is accepted that there is a) a need, and b) the means (funding and capacity) for DG ECHO DP interventions in the region, then three important questions would determine what shape the strategy should take. These are 1) the levels of vulnerabilities and capacities of local communities to take ownership, 2) the nature of hazards that would then define the sectoral focus and approach, 3) the availability of capable and committed partners that fully understand what DP involves (to avoid them continuing business as usual).
- 4.5. Amount:** The key determining factor for any strategy will be the amount of money that could be available – and whether the amount of money that may be available can be matched by the capacity of agencies on the ground to use the money effectively. To cover all 5 countries that have been assessed with a DIPECHO intervention, which would have impact, would probably need between €10,000,000 and €12,000,000. A relatively simple disaster preparedness project such as the construction of cyclone/flood proof community buildings (probably schools that could have a dual purpose and be used as refuges when a community is affected by a sudden onset natural disaster), out of aluminium tubing, sunk into concrete bases, would cost approximately €1 million to build 150 basic structures in Madagascar at a rate of 1 building per community, although obviously it would not be necessary to fund all 150 buildings, and in a context of awareness, one may only fund the building of a limited number to act as an example. The covering of cisterns by UNICEF in Comoros has cost over €1.5 million. If the amount available were €5,000,000 to €7,000,000 then it would be necessary to reduce either the geographical scope or the sectors of the intervention. Given that this would be the first DIPECHO intervention in Africa, (if one excludes the drought decision in the Horn of Africa) and therefore an ‘unknown quantity’ **a lesser amount may not be unwise**, if there was the possibility of future DIPECHO interventions in the region and if this first decision was shown to be successful. Otherwise, a single narrow decision, even over a 15 month period may not have significant impact and may have limited sustainability. It is unlikely that this would be the case (taking a single-standing intervention); if DG ECHO decides to intervene it would probably be 2-3 decisions followed by an evaluation that would determine if the programmes should be continued or not
- 4.6. Scope of Intervention:** The scope of the intervention should be decided geographically and by sector according to the amount of funding that would be available, even though there is a strong argument to suggest that the priority

should be decided by the urgency of the needs, which in most of the countries that were visited are drought and disease. The recent outbreaks of cholera in Angola and Malawi and the more frequent outbreaks in Zimbabwe have demonstrated how vulnerable the communities are to disease. Drought is a recurring problem. In Zimbabwe, for example, whilst the team was talking to the local community in the flood-affected area of Muzarabani, ironically, the affected population disclosed the fact that flooding was not the major threat but drought was. In fact, they said that some lowlands farmers looked forward to the occurrence of the floods because debris damped by floods helped improve the fertility of the soil of their farms. Furthermore, residual moisture makes it possible to grow winter crops, long after the floods have receded. Perhaps this is a lesson in how to live with a natural disaster rather than trying to prevent it.

By Sector: Nevertheless, if one followed this argument through then a DIPECHO intervention would deal almost exclusively with either drought disaster preparedness measures or HIV/Aids and Malaria disaster preparedness measures. Some of the sectors may exclude themselves where there are only smaller amounts of funding available on the grounds that the amount that might be available to address a huge chronic issue – for example drought preparedness – would mean becoming involved in a long series of chronic issues on which much funding is already being spent with other instruments, not least of which is the food aid budget that now resides with ECHO, which although definitely not designed to carry out extended food security programmes, will, as is the case in the Horn of Africa, help to mitigate the effects of drought.

Preparedness for Disease Outbreaks: Part of evaluation included the need to review the possibility of including preparedness against a disease outbreak as part of a DIPECHO strategy. Given the lessons learned from the recent cholera outbreak in Angola and, for example, in 2004 in Malawi, there is definitely a need and justification for preparedness for disease outbreak and any measure that would lessen the effects of a disease outbreak, should be encouraged but it is questionable to what extent a specific DP intervention should include it. In Malawi and Madagascar UNICEF has been robust in such preparedness – in Malawi using DG ECHO funding, as was the case in the severe outbreak of cholera in 2004. Nevertheless, the evaluation mission found that it would be difficult to know where to draw the line in disease outbreak preparedness – whether, for example, there should be preparedness against surges in malaria or dysentery, as a latent effect of flooding; whether aspects of HIV/Aids should be included. It was concluded that, preferably, preparedness against medical/health disasters should be a separate decision, and it is recommended that the work done by some of the medical experts in ECHO, in this field, should be followed up. In the opinion of the evaluation, if there is limited funding for a DP intervention, then including the medical aspect could dilute the programme too much. Alternatively it would be for the management of DG ECHO to decide to what extent such measures as disaster preparedness against a disease outbreak should be taken or integrated into normal DG ECHO programmes.

By Geographical Coverage: The 5 countries that the evaluation mission visited are the most susceptible in the region to natural disasters of various sorts, and are therefore ‘prime candidates’ for a DIPECHO intervention. Nevertheless, whilst the evaluation was limited in the countries that they were able to visit, recent events have shown that, in the future, there may be a need to examine a regional-type decision which would embrace Angola, Namibia, and possibly Zambia as well. Outbreaks of cholera and flooding in Angola have demonstrated the need for preparedness measures there, flooding has frequently occurred in Namibia, prompting, for example a DG ECHO response in 2005, and drought, cholera, and flooding all occur in Zambia.

Management of an Intervention: For a DG ECHO DP intervention to be successful it needs to a) be carefully targeted and assessed, b) to be implemented by partners who are already on the ground and know the areas well, as well as having the technical capacity to implement such programmes, c) it needs to be rigorously monitored, d) it needs follow up to ensure that it is sustainable and to measure the impact and e) it needs to be integrated/or have symbiosis with current DG ECHO programmes in the region. This not only requires a degree of rigour from the potential implementing partners, but also needs careful management by ECHO.

Holistic Approach: It is suggested that there would need to be an integrated approach; that any DP intervention is managed in close conjunction with the standard DG ECHO programmes being implemented in the region so that there is symbiosis, and a multiplying effect. Thus there should be the involvement of the Country expert, DP expert, and RSO. Given the current make-up of the Southern Africa DG ECHO office in Zimbabwe, it is probably sensible that rather than being independent, a DP person who would manage any intervention, should be part of the Southern Africa office, and that the current DG ECHO correspondent should be in charge of the office and thus have an overview of not only the standard DG ECHO regional programmes, but also the DP programmes. Given the amount of work that is likely to accrue for the office, and the large geographical area that needs to be covered it is likely that a third DG ECHO expert would be needed in the office.

Some Issues & Misconceptions Related to Disaster Preparedness:

- 4.7. Protection:** One of the aggravating factors in the aftermath of any disaster is the issue of ‘protection’ in all its forms. For example, the issue of ‘land rights’ subsequent to both the Tsunami and the Pakistan Earthquake exposed the vulnerability of women to be able to retain their homes in cases where the spouses had been killed. Similarly, one of the major issues following the floods in 2000 and 2001 in Mozambique was, again, the issue of land rights and the reluctance of people to move or to be relocated to areas where their rights to land were dubious or where the land might be unsuitable for sustaining their livelihoods. This is something that is manifesting itself in 2007 in the flooded Chikwawa Valley, where people are reluctant to leave their land by the river, for fear a) that the land

will be taken by sugar cane businesses, b) that alternative plots in more secure areas are unsuitable for maintaining livelihoods, and c) they would lose their traditional ways of life and hierarchical structures by moving to different land. This represents only one aspect of protection, but in every natural disaster there is liable to be an overarching element of protection, and this should be carefully considered when formulating any disaster preparedness strategy.

Any disaster preparedness strategy should mainstream the issue of 'protection'. DIPECHO, however, should be especially aware of protection, if it is to adopt a disaster preparedness strategy for S.E. Africa, where such issues as 'land rights', the rights of women and children, and the rights of vulnerable populations as a whole – 'human rights' – have such a worsening effect to any disaster. This is an important reason why it is essential not to separate a potential DIPECHO project from the standard DG ECHO programmes in the region.

- 4.8. Early Warning Systems:** The usefulness of warning systems needs to be re-examined – or rather defined in the context of who they are useful for, and who they should be useful for, and in connection with communications; it does not matter how refined the early warning system is, if the information does not filter down to the people that need it either because it is not in a form that can be understood or because communications are lacking to transmit it. As in the Limpopo Valley, even though there are sophisticated warning mechanisms in place, and although there is much regional communication especially in terms of water flow from the major dams, Kariba and Cahora Basso these warnings either do not translate into information amongst the local communities, or the local communities choose to ignore them, being unwilling to leave their homesteads, cattle, goats, and 'shambas' until the last possible minute, for the economic losses that it may otherwise cause. In the Zambezi Valley, most of the communities living by the river have access to boats/canoes and they generally know the river well.

Despite this, in a really major flood, they can get caught out, with all the consequent grief. Similarly EWS exist in many forms for drought, but it is questionable to what extent they have served the needs of the people who are eventually affected by drought. Whilst it is extremely important to encourage all forms of EWS, it is equally important that translation of scientific early warning data into information that genuinely warns the effected should be at the forefront of any system.

The question of who EWS are for is important. This evaluation found that many systems inform donors and governments, officials and scientists, aid agencies and NGOs but not the affected communities. In some cases the first they know of a flood is when their homes are being washed away. DIPECHO has funded real community based systems in many other parts of the world, i.e. systems where the ownership is with the community, in some areas (GTZ in Latin America) and this would be a recommendation for this study too, as well as encouraging a general review of whether the EWS are correctly targeted. Some aid agencies argue that if

EWS alert them, [the agency] then this is enough as it enables them to provide early assistance to the affected community. This evaluation would argue that **this is not enough**; that by the time the agency warns the community or tries to assist the community, it may be too late, and, in any case, community based warning systems and warning systems that alert the whole gamut of other interested parties need not be mutually exclusive.

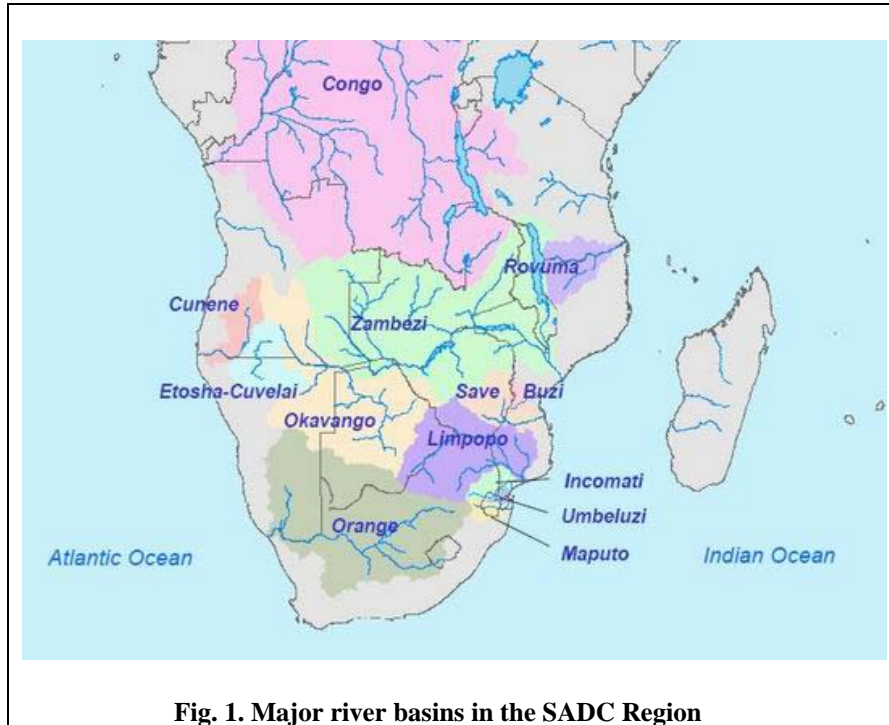
At the other end of the spectrum early warning demands trust. Predicting a flood is only part of the process. Communities must trust the warnings before they will move. Involving community leaders in the early warning chain will help. Operating an early warning system needs money to pay and train flood monitors and to provide coordinators with bicycles, radio batteries and mobile phones. This can be done through relatively simple inexpensive projects that would be ideal for disaster preparedness interventions, such as has been done by GTZ in Central America and as is being done by them in the Buzi River valley in Mozambique.

- 4.9. Floods:** Southern Africa has one of the most complex networks of international rivers and shared river basins in the world. Every major river in the region is shared by at least two countries and every country has at least one international river.

Mozambique is the extreme case where more than 50% of its territory constitutes part of nine international river basins – from South to North, the Maputo, Umbeluzi, Incomati, Limpopo, Save, Buzi, Pungoé, Zambezi and Rovuma as shown in the figure³ below. All these rivers have their flood plains inside Mozambique, with the exception of the Rovuma river that forms the border between this country and Tanzania.

Thus Mozambique becomes the flood plain for all of S.E. Africa and is susceptible to all the natural and man-made problems that can affect river flow, whether within Mozambique itself or in its neighbouring countries. (This problem may be slightly alleviated by a more robust approach from the SADAC water authority, which is a regional institution, but from what the evaluation saw much of the regional co-operation fails to address effectively some of the grass-roots issues – especially EWS that translate into useful information for the vulnerable populations). In addition, Mozambique is frequently subjected to cyclones, which can often have a severely aggravating effect on floods.

³ Source: Universidade Eduardo Mondlane – Department of Geography and Famine Early Warning Network (2003) Atlas for disaster preparedness and response in the Limpopo basin Instituto Nacional Da Gestao De Calamidades.



4.10. Flooding: Flooding is a natural and recurring event for a river or coast. With rivers, flooding is a result of heavy or continuous rainfall exceeding the absorptive capacity of soil and the flow capacity of the river channel. This causes a river to overflow its banks onto adjacent land. On coasts, high sea levels and waves can cause flooding. In Southern Africa, three common types of floods include: plain; flash and coastal. The plain floods generally occur seasonally during the ‘rainy season’, characterised by long durations (for example land can often be inundated for several weeks or months). These floods are also typified by long lead times which usually provide adequate opportunities to issue flood warnings. Flash floods can occur within several seconds to several hours, with little warning and can be deadly because they produce rapid rises in water levels and have devastating flow velocities. Key factors that can contribute to flash flooding include rainfall intensity, rainfall duration, surface conditions, and topography and slope of the receiving river catchments. Urban areas are prone to flash floods due to extensive surface areas composed of impervious streets, roofs, and parking lots where runoff occurs very rapidly. Mountainous areas also are susceptible to flash floods, as steep topography can direct runoff quickly into narrow valleys, such as the case of the Mulanje mountains of Malawi. Coastal flooding is induced by strong winds generated from tropical storms and cyclones or intense offshore low-pressure systems can drive ocean water inland and cause significant flooding. Escape routes can be cut off and blocked by high water. Coastal flooding can also be produced by sea waves known as ‘tsunamis’, sometimes referred to as tidal waves. These waves are generally produced by seismic activity.

In general, floods are natural phenomena which cannot be prevented. However, human activity is contributing to increasing the likelihood and the adverse impacts of flood events, hence the need (see paragraph 3.10.) for consideration of ‘advocacy’ and ‘protection’ in any DIPECHO intervention. Similarly, although floods are an increasing phenomenon, EWS are becoming as quickly sophisticated and much can be done to alleviate suffering through the effective use of EWS, (but see paragraph 3.11 for discussion on EWS).

4.11. Drought: In contrast to flooding, cyclones, earthquakes, volcanoes, or outbreaks of such things as cholera, drought, is a more insidious or ‘slow onset’ disaster, but in most of the region that the evaluation visited it is a serious disaster, and, apart from HIV/Aids and malaria, it has the highest impact – see table 7 for the impact in Mozambique, alone. The problem with drought is that it is an intermingling of many other chronic problems and in a humanitarian context it is often linked to malnutrition and food insecurity, although these aspects are very often not a direct result of drought. Drought is just one of many factors that increase the vulnerability of certain sections of the population which may, in turn exacerbate malnutrition and food insecurity. Drought is difficult to define spatially and temporally in a precise way: instead, various different definitions can be used. First of all, meteorologically, a dry period with arid conditions (i.e. when potential evaporation is higher than precipitation) beginning, for example, in Mozambique and Madagascar, in April and continuing until October, is a completely normal phenomenon characteristic of the climate of the semi-arid tropics. A drought in the meteorological sense is defined as when the amount of precipitation in one year remains at least 25% below the long-term average value; by contrast, it is possible to speak of a hydrological drought if the watercourses run dry; and a drought in the agricultural sense when soil humidity is not sufficient to provide appropriate plant growth. Drought can only be considered a disaster when *‘a disruption in the normal functioning of a society exceeds the ability of the affected communities to cope unaided’*. In Zimbabwe, for example, until the time of the land redistribution, rain patterns were still erratic, but impacts of ‘drought’ were not felt as they are now, because the farmers had invested in irrigation systems that compensated. When the land was re-distributed these systems could no longer be maintained and thus the effects of erratic rainfall had much greater impact – causing drought. This can be the case, in particular, if the necessary precipitation stays below average expectations continuously for more than a year.

The problem, however, with ‘drought’ in relation to disaster preparedness, is that it is caused by such a combination of different factors, most of which require long-term structural approaches that a disaster preparedness intervention would probably only deal with some of the effects rather than contribute to any sustainable solution. Nevertheless, as has been pointed out by many DG ECHO staff, DG ECHO has engaged in drought in the Horn of Africa, not only in 2006, but effectively as a consequence of the drought in Ethiopia in 2000. Furthermore, the implementation of activities (which were largely disaster preparedness measures) in Ethiopia from 2001 showed how effective they were when drought revisited the area in 2004.

Nevertheless, there are areas in which disaster preparedness measures could contribute to reducing the impact of drought. In Malawi, where CARE and Concern have been funded by DG ECHO to implement therapeutic feeding projects, an important element of the project is to develop community based surveillance systems, which is an early warning system for the onset of severe drought. Hopefully when these warnings are picked up, action can be taken to prevent the situation from becoming worse. Similarly there are some encouraging initiatives that are looking at the provision of water in drought prone areas – initiatives that go beyond merely ‘drilling a new borehole’. In Madagascar CARE is looking into the possibility of a number of water ‘catchment’ projects that explore the possibilities of exploiting the rain that does fall in these regions rather than let it escape.

- 4.12. The narrow boundary between natural disasters and man-made disasters:** In all aspects of disaster preparedness it is important to bear in mind the narrow boundary between natural disasters and man-made disasters, or the extent to which man-made/induced factors can aggravate a natural disaster, and therefore the degree to which advocacy should be an essential part of disaster preparedness. Advocacy can take many forms from having (in the case of the Commission) a focal point for disaster preparedness in the region to providing some form of capacity building at government level by funding expert personnel to advise on disaster preparedness.
- 4.13. Pre-positioning/Pre-stocking:** There are many arguments over pre-positioning as a disaster preparedness measure, and in fact, whether it is a disaster preparedness measure or a disaster response measure. From a DG ECHO point of view, the disaster preparedness aspect is also important, and to this extent they have funded IFRC on many occasions, and continue to do so with thematic funding for pre-positioning.

Pre-positioning until recently has been a system that depends on the physical placement of stock where disasters are most likely to occur, or pre-positioning of stock because access to potential disasters may be denied. The problem is that disasters are very often unpredictable as to where they will occur, and so the pre-positioning of stock in one place may become totally irrelevant – as was seen in the Pakistan earthquake where the need for tents was in the country that made them, but most of them had been dispatched abroad to regional centres such as Nairobi to allay the needs for tents in places such as Darfur. Thus, in re-directing the stock the pre-positioning had become an expensive and time consuming exercise, becoming doubly so because in waiting for the acceptable quality tents to be re-deployed, unsuitable tents were used as a substitute. Nor does pre-positioning in a region take into account some of the quirks of border crossings. In 2006 there was an urgent need to send non food items to Swaziland to deal with the effects of flooding. IFRC thought that they would easily and swiftly be able to deal with this from their regionally pre-positioned stocks in Harare, but they did not account for the difficulties in customs control and much of the stock that was urgently needed spent 3 days on the Swaziland border. It would have been

quicker and cheaper to send the non food items from Europe. IFRC claims for efficiency in traditional pre-positioning systems are only valid if there is regional cooperation, and too often this has been lacking. The evaluation team could quote many other examples where IFRC regional pre-positioning has failed. Another important element of ‘pre-positioning’ is maintenance of the stock. This failing was demonstrated during the mission’s time in Mozambique during the ongoing emergency when items in stock that were needed for this emergency (water pumps that had been funded by DG ECHO after the floods in 2001) were found to be unusable through a total failure to maintain the items.

This is the argument now of many commercial firms who have an interest in becoming involved in humanitarian aid; that with good data tracking systems and framework partnership agreements, it is no longer necessary to pre-position stock in certain regional hubs where it may never be used. Far more effective is to identify where stock is at any time. In a small way the UNICEF logistics expert in Madagascar is attempting to set up such a system by identifying suppliers and working out framework partnership agreements. UNICEF with their hi-tech systems in Copenhagen, also expounded (or their Brussels Office did) on another element of pre-positioning which is the ‘just in time’ argument, whether with data tracking systems one can dispatch stock to a disaster just in time, generally a much cheaper and more efficient system, but whether by doing so one takes a possibly unacceptable risk of being just too late. This argument also revolves around more subtle nuances such as whether pre-positioning becomes a needs driven exercise or a supply driven enterprise. ECHO’s disaster preparedness interventions may not exclude pre-positioning as a strand of any intervention in the region, but should ensure that if there is an element of pre-positioning it is rigorously considered, whether all the elements have been taken into account. IFRC is a strong advocate for pre-positioning and they have certainly become more meticulous in their methodology, but in a region such as S.E. Africa the old-fashioned concept of pre-positioning can only be acceptable; if there is guaranteed easy movement across the borders in the region; if there is comprehensive management of stock, without the expensive recycling that this often brings; if the stock that is going to be pre-positioned is suitable for the needs for future disasters.

5. Conclusions

- 5.1.** Disaster preparedness is only part of overall DRR efforts. It is unquestionable that DRR is essential in the region of Africa that this evaluation has looked at, and therefore by extension ‘disaster preparedness’. Nevertheless it is, perhaps, ironic that an emergency response instrument such as DG ECHO should be utilised for disaster preparedness intervention, which usually implies a need for long-term sustainable approaches. Perhaps DG ECHO is the best placed to do this community-based work – with its ‘close to the ground’ systems. Perhaps this is also a role that, pragmatically, DG ECHO has to accept, whilst at the same time advocating for more grass-root approaches from the longer-term development agencies.

The real emergency should be to implement more effective development programmes which should 1) integrate risk reduction and disaster preparedness, by mainstreaming into development and humanitarian policy of the European Commission and DG ECHO – something that is slowly starting to happen, which should 2) radically reduce the need for disaster preparedness. On a **global** scale there should be four elements to any disaster preparedness policy which should be:

- i. Mainstreaming:* At all levels of the EC and ECHO, DRR should be an automatic consideration for humanitarian policy and development planning, in the same way that HIV/Aids should be. In DG ECHO projects there should be specific budget lines for aspects of disaster preparedness – as is done with HIV/Aids.
- ii. Improve Capacity at National and Regional Levels:* Strengthening the capacity of national and regional platforms to mitigate risk; improve disaster management; to decentralize capacity to do so,
- iii. Implement programmes from ‘bottom-up’*, which is where DG ECHO would intervene as well as a top-down approach (in the realm of the delegations). It has to be accepted that it may take governments time to be able to take complete responsibility for DRR strategies and in the meantime, more has to be done to strengthen the resilience of vulnerable communities. This is best achieved through community level awareness, training, capacity building, and empowerment.
- iv. Follow-up:* There has to be rigorous follow-up to ensure a) that there has been some impact, b) that sustainability is ensured, c) to provide future models for successful disaster preparedness interventions.

5.2. Ensure that some form of complementarity is built into a DIPECHO intervention in the region so that it a) is in harmony or complements existing DG ECHO projects in the region, and b) lends itself to be a pilot or foundation for future longer-term Delegation projects (perhaps, such as the water project in the Comoros), c) clearly takes into account some of the specific issues of S.E. Africa, such as the issue of protection – see paragraph 4.6.

- a. Mainstreaming:* At all levels of the EC and ECHO, DRR should be an automatic consideration for all humanitarian policy and development planning, in the same way that HIV/Aids should be. In DG ECHO projects there should be specific budget lines for aspects of disaster preparedness – as is done with HIV/Aids.
- b. Improve Capacity at National and Regional Levels:* Strengthening the capacity of national and regional platforms to mitigate risk; improve disaster management; to decentralize capacity to do so,
- c. Implement programmes from ‘bottom-up’* as well as top-down approach. It has to be accepted that it may take governments time to be able to take

complete responsibility for DRR strategies and in the meantime, more has to be done to strengthen the resilience of vulnerable communities. This is best achieved through community level awareness, training, capacity building, and empowerment.

- d. Follow-up:* There has to be rigorous follow-up to ensure a) that there has been some impact, b) that sustainability is ensured, c) to provide future models for successful disaster preparedness interventions.

- 5.3.** DG ECHO has many advantages that would allow a DIPECHO approach in S.E. Africa and S.W. Indian Ocean Islands to not only benefit the vulnerable communities, but to enhance other donor strategies. A DIPECHO intervention, therefore, would certainly not be inappropriate. It is in line with a more radical approach to the way in which humanitarian problems are resolved. It may also be appropriate for ECHO, as a, now, well-known and well-respected, humanitarian donor to demonstrate that it is flexible enough to examine other solutions towards reducing humanitarian distress, whilst at the same time, by having a programme in the region, giving DG ECHO a position of strength from which it can advocate on the grave humanitarian situations that are developing in the region.

6. Recommendations:

- 6.1. Recommendations:** This is a summary of the recommendations from the evaluation team. It is realised that one or two of the recommendations may not be entirely practical for DG ECHO at this stage. Nevertheless **the main recommendation is that there is an identified need for disaster preparedness activities of the type DG ECHO can deliver in the region.**

- 1. DG ECHO DP intervention is proposed.** There is definitely room for ‘bottom up’ approaches such as would be implemented by ECHO’s community-based interventions. The strategy of the Delegations and that of DIPECHO would not be mutually exclusive, but should be complementary as part of the overall commitment to LRRD. Harmonisation with other commission programmes is also essential and should be complementary to what the delegations may be doing with regard to disaster preparedness. A DG ECHO DP strategy in the region should focus on an unassuming carefully assessed and targeted intervention that does not overlap with other more global approaches of the longer-term donors, but could, nevertheless act as a catalyst for development instruments of the Commission.
- 2. A modest amount to start:** Given that this could lead to the first DIPECHO intervention in Africa, and therefore an ‘unknown quantity’ **an amount of €5 million to €7 million is recommended.** If, however, this was an isolated intervention, without the possibility of future DIPECHO involvement in the region (if this first decision was shown to be successful) a single narrow decision, even over a 15 month period may not have significant impact and may have limited sustainability. This, however, is unlikely to be the case – if there is a

DIPECHO intervention it is more likely to be for 2 – 3 years with evaluations launched to assess the impact. A ‘one-off’ intervention would be a waste of resources.

3. ***Sudden Onset Natural Disasters:*** With a limited amount of funding, i.e. between €5 million to €7 million, a DP intervention should limit itself to community-disaster preparedness for flooding, cyclones, and volcanic eruptions focussing primarily on the countries of Mozambique, Madagascar, and Comoros and embracing the possibility of a three-fold strategy:
 - i. ***Community based interventions,*** to a) raise awareness, and b) create structures and systems that would increase safety, including the use of community based EWS, such as is being done by GTZ in Mozambique, or provide safe havens, such as the cyclone/flood proof structures that are being piloted by UNICEF and CARE in Madagascar and the contamination proof water cisterns that are being built by UNICEF in Comoros,
 - ii. ***Advocacy, through capacity building at national level,*** by funding (as is done with OCHA in Zimbabwe) agencies or personnel who can advise and enhance the national structures responsible for disaster preparedness.
 - iii. ***Ensure that some form of complementarity is built into*** a DIPECHO intervention, as mentioned in recommendation 1, in the region so that it a) is in harmony or complements existing DG ECHO projects in the region, and b) lends itself to be a pilot or foundation for future longer-term Delegation projects (perhaps, such as the water project in the Comoros), c) clearly takes into account some of the specific issues of S.E. Africa, such as the issue of protection.

This could be combined with some regional strategies, through such agencies as IFRC, UNICEF, OCHA, and others, (being aware that some of these agencies receive thematic funding to take such measures), where they a) have pre-positioned stocking systems (but see discussion on this in paragraph 4.12.) b) enhance the training of their Red Cross branches or personnel to deal with emergencies, and c) where there are community-based volunteers (in the case of the Red Cross

4. ***Geographical Coverage:*** The 5 countries that the evaluation mission visited are the most susceptible in the region to natural disasters of various sorts, and are therefore ‘prime candidates’ for a DP intervention. Nevertheless, whilst the evaluation was limited in the countries that they were able to visit, recent events have shown that, in the future, there may be a need to examine a regional-type decision which would embrace Angola, Namibia, and possibly Zambia as well. Outbreaks of cholera and flooding in Angola have demonstrated the need for preparedness measures there, flooding has frequently occurred in Namibia,

prompting, for example and DG ECHO response in 2005, and drought, cholera, and flooding all occur in Zambia.

5. ***Build on Existing Capacities:*** In some cases and countries in Southern Africa, where often the emergencies are less clearly defined, and where it is obvious that there is limited emergency response capacity amongst agencies to respond with emergency relief in a standard DG ECHO response method, (which seems to be increasingly the case where agencies are more attracted to development funding), then rather than give up hope of being able to execute an emergency response, perhaps it would be sensible to examine the opportunity for initiating a disaster preparedness response – such as happened, fortuitously, in Malawi with the therapeutic feeding programmes. Many of the DG ECHO programmes in the region (see Annex B) are, in effect, disaster preparedness projects rather than emergency response projects, and this is probably because of the nature of some of the agencies that are already on the ground who are more focussed on development work than emergency response.
6. ***Recovery decision as a part of disaster preparedness?*** In the same context, in countries where the main focus is on development aid, but where a disaster may strike, prompting an emergency decision from ECHO, then thought could be given to a **‘recovery’** decision, in the context of DP strategies, which should include significant elements of disaster preparedness, as happened, fortuitously, in Malawi with the support given to therapeutic feeding, where the inclusion of community based nutritional surveillance systems should, in future, prepare a community better to deal with drought. At the same time other agencies, notably World Bank and UNDP are heavily engaged in this sort of approach and certainly push the agenda very strongly for early recovery, and therefore it may be best left to them.
7. ***Holistic Approach:*** It is suggested that there should be an integrated approach; that any DG ECHO DP intervention is managed in close conjunction with the standard DG ECHO programmes being implemented in the region so that there is symbiosis, and a multiplying effect. Thus there should be the involvement of the Country expert, DIPECHO expert, and RSO and DP experts in ECHO. Given the current make-up of the Southern Africa DG ECHO office in Zimbabwe, it is probably sensible that rather than being independent, a DG ECHO DP person who would manage any intervention, should be part of the Southern Africa office, and that the current DG ECHO correspondent should be in charge of the office and thus have an overview of not only the standard DG ECHO regional programmes, but also the DP programmes. Given the amount of work that is likely to accrue for the office and the large geographical area that needs to be covered it is likely that a third DG ECHO expert would be needed in the office. If it is decided to promote a DP intervention then this report should be followed up with a more detailed evaluation by the ECHO/DP correspondents, by the RSO/ECHO 04 in Nairobi, and the relevant desks.

8. ***DG ECHO and several of its DIPECHO partners have a strong record of advocacy tools and experience:*** Consideration should be given to projects that encourage advocacy, possibly, once again through capacity-building at national level in the form of providing expertise and technical advice for enhancing the national platforms for disaster management, and through raising the profile of overarching concerns such as evacuation plans, community radios as means to gather information and distribute information in case of an emergency. **‘Protection’** an issue, which, through the lack of robust approaches, causes considerable additional misery in the aftermath of many disasters, especially in child and gender issues (land rights issues), should be an essential part of any disaster preparedness strategy to the extent that it should be mainstreamed. DG ECHO however, should be especially aware of protection if it is to adopt a disaster preparedness strategy for S.E. Africa, where such issues as ‘land rights’, the rights of women and children, and the rights of vulnerable populations as a whole – human rights – have such a worsening effect to any disaster. This is an important reason why it is important not to separate a DP project from the standard DG ECHO programmes in the region.
9. ***Early Warning Systems:*** The question of who are EWS for is not only pertinent but important. This evaluation found that many systems inform donors and governments, officials and scientists, aid agencies and NGOs but not the people on the ground. DIPECHO has funded real community based systems, i.e. systems where the ownership is with the community, in some areas (GTZ in Latin America) and this should be a recommendation for this study too, as well as encouraging a general review of whether the EWS are correctly targeted. Some aid agencies argue that if EWS alert them then this is enough as it enables them to provide early assistance to the affected community. This evaluation would argue that that is not enough; that by the time the agency warns the community it may be too late, and, in any case, community based warning systems and warning systems that alert the whole gamut of other interested parties need not be mutually exclusive.
10. ***Improved Assessments and Tighter Monitoring:*** Any DG ECHO DP intervention will need to carefully assess the capacities of the partners, but more than that will need to ensure that they carry out better assessments than appear to be carried out now. There is much tired thinking that goes into some of the partners’ projects and a DP strategy should not fall prey to that. This will require considerable rigour from the expert responsible for a DP programme.
11. ***DG ECHO should encourage a more robust approach to the ‘mainstreaming’ of disaster preparedness,*** in all its interventions in the region, as is done with ECHO’s strategy for HIV/Aids. Some of this can be done through awareness raising, radio campaigns, curricula development etc.
12. ***Preparedness against disease outbreak*** is vital but should be the content of **a separate, specialised decision**, particularly in a region where so many diseases are liable to surge at any one time that the whole of a disaster preparedness

decision could be spent on disease preparedness alone. DG ECHO policy on this is usually, as in the case of HIV/Aids, to mainstream preparedness in specific projects to get as close to the beneficiaries as possible – where the risks are the highest, but this is usually in the case of slower onset diseases such as malaria. There are times, as the outbreaks of cholera in Angola, Malawi, and Zanzibar in 1998, when having a separate disease ‘preparedness’ decision may have been of great benefit.

13. *There are opportunities for projects which involve cross-learning* and exchanges between countries in the region especially with such sectors as EWS. Nevertheless, whilst DIPECHO should certainly look, for example, at the possibilities of funding projects for community based EWS, the regional harmonisation of EWS and the rationalisation of EWS so that they provide information which is useful to the exposed populations **should be the task of the EU Delegations rather than DIPECHO**
14. *Prior to any firm commitments or formulation of strategies, DG ECHO should liaise closely with other donors*, who are working on disaster preparedness and DRR issues such as DFID, WB, UNDP and lead DG ECHO NGO partners in DP/DRR who are present in this region.
15. *This report should be followed by a careful analysis from the DIPECHO representative* with input from the DG ECHO country representative, **if the recommendation for a DIPECHO intervention is taken up.** If DG ECHO decides to invest in Disaster Preparedness on the basis of this evaluation, it is important that a proper identification mission is undertaken; an assessment that will be able to spend more time carrying out a full evaluation of risks, coping capacities and vulnerabilities in locations where DG ECHO may intervene. This should be done with the regional DG ECHO correspondent together with the relevant desks and the RSO in Nairobi, although it will, obviously, be up to DG ECHO to decide who should do this. The most important appraisal will be on the ground to determine the abilities and capacities of potential partners.

Annex A to:

DIPECHO Ex-ante Evaluation Report:

Dated: 9th March 2007

**Vulnerable Countries in S.E. Africa and
S.W. Indian Ocean:**

Factors: The aggressive movement of moisture and winds, blown from the Indian Ocean tracking over Madagascar, through the Mozambican channel, propagates cyclones and tropical storms in the S.E. Africa and S.W. Indian Ocean region, which in turn aggravate an already existing propensity to flooding. Seismic activity in the Rift Valley where it extends down into this region as well as volcanic activity in the Comoros adds another natural hazard to the region. In addition, the region is already severely weakened by drought which along with many other factors is exacerbated by inconsistent meteorological conditions, by disease, especially HIV/Aids and malaria with a growing susceptibility to water-borne diseases such as cholera. The countries that were visited, identified as being the most vulnerable to the natural disasters include Zimbabwe, Malawi, Mozambique, Madagascar and Comoros Islands. The timeframe did not allow for visits to other countries in the region where recently natural disasters have occurred – floods and cholera in Angola, and floods in Namibia.

7. Comoros

1.1. Background: The Comoros Islands, and, in particular Grande Comoro, are less typical of the region that was assessed, except inasmuch as they are a fragile country economically and in relation to the ‘Human Index’. Comoros is one of the poorest countries in the world. Economic growth and poverty reduction are major priorities for the new, and inexperienced, government. A current rate of 14.3%, unemployment is very high but still rising. High population densities – as much as 1000 per square kilometer in the densest agricultural zones – for what is still a mostly rural, agricultural economy may lead to an environmental crisis in the near future, especially considering the high rate of population growth. It also exposes the population to more risk from natural disasters. Comoros has an inadequate transportation system, a young and rapidly increasing population, and few natural resources. The low educational level of the labour force contributes to

a subsistence level of economic activity, high unemployment, and a heavy dependence on foreign grants, outside remittances and technical assistance.

The Comoros, however, do not suffer from some of the overarching issues that beset S.E. Africa such as the HIV/Aids pandemic and recurrent drought, but they are, perhaps the most vulnerable to any sudden onset natural disaster – the eruption of a volcano. On Grande Comoro, they are susceptible to the outbreak of disease due to poor sanitation, they are vulnerable to cyclones, recently they have become vulnerable to flooding and mudslides as a result of the deposits left by the volcano, and the population *‘lives under a volcano’* – the second largest active volcano in the world. Recently, the eruptions from Karthala have become more frequent and they have been phreatic, which has meant that the eruptions have deposited much material (some ‘heavy metal’ or toxic) into the fragile water system. The island’s water supply is almost entirely dependent on rainwater that is stored in often exposed water cisterns. Even without the threat of the volcano life on Grande Comoro is tenuous, and as the famous Vulcanologist, Haroon Tazieuf, remarked, simply *‘...No one should live on this island...’*

1.2. Activity of Mt. Karthala: The tremors that have been felt in early 2007, mainly in the South and South West of the island have, not surprisingly, provoked new assessments from the volcanologists, which due to a lack of agreement on prognoses have led to few concrete recommendations. What they do seem to agree on is that a) the life or life cycle of Karthala is changing, b) that there is still much magma activity, but the plug in the centre of the volcano has hardened, which is either a good thing or a bad thing, c) there is still seismic movement, although currently less strong, and d) they cannot predict what might happen, although if the next eruption was a magmatic explosion (the explosion of molten rock) as opposed to a phreatic explosion (an explosion caused by groundwater coming into contact with ascending magma and usually causing smoke and dust) it could be quite disastrous. The main thing that cannot be agreed on is whether the change is for better or worse, and therefore whether there is a more or less urgent need for disaster preparedness.

1.3. Top Ten Natural Disasters⁴

Table 1:

Table of 10 Disasters with Greatest Impact in Comoros							
	Disaster type	Date	No Affected		Disaster type	Date	No Affected
1.	Volcano	24-Nov-2005	245,000	6.	Volcano	5-Apr-1977	25,000
2.	Wind Storm	3-Jan-1987	50,000	7.	Epidemic	12-Mar-2005	1,358
3.	Volcano	16-Apr-2005	39,000	8.	Epidemic	2006	924
4.	Wind Storm	14-Feb-1985	35,000	9.	Epidemic	Feb-1989	450

⁴ Source: "EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net - Université catholique de Louvain - Brussels - Belgium

5	Wind Storm	10-Jan-1983	30,052	10	Wind Storm	25-Apr-2003	300
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Table 2

Type	# of Events	Killed	Injured	Homeless	Affected	Total Affected
Drought	1	0	0	0	0	0
<i>Avg. per event</i>		0	0	0	0	0
Epidemic	4	13	0	0	2,784	2,784
<i>Avg. per event</i>		3	0	0	696	696
Volcano	6	19	0	5,200	304,000	309,200
<i>Avg. per event</i>		3	0	867	50,667	51,533
Wind Storm	6	559	52	50,300	65,000	115,352
<i>Avg. per event</i>		93	9	8,383	10,833	19,225

- 1.4. Emergency Strategies:** Recent seismic movements have ‘jolted’ the population on Grande Comoro, both in the literal sense and the hypothetical sense, as they have not felt these tremors during previous volcanic activity. The government has begun to realise, that, as pointed out by the UN, some of their disaster preparedness plans in the event of a major volcanic eruption are inadequate (even though they are more advanced than most of the countries that were assessed); that, for example, to depend on road evacuation, if Moroni (which is potentially on the path of lava flows) was affected, is hardly realistic given the fact that there is only one road out of Moroni and it is extremely small and narrow. Furthermore, it would hardly be possible to load the whole population into boats as really the only boats available are small fishermen’s boats. Although there is a vague contingency plan to alert large boats from Dar es-Salaam, by the time that such boats arrive, it may be too late. Nor are there any realistic plans that would enable an airlift capacity, although if there was a major eruption it is questionable whether aircraft would be able to land, anyway. Most of the disaster preparedness plans, however, are based on a less pessimistic prognosis, reacting to a situation where lava flows are confined to one part of the island, allowing the population to escape to another part of the island. To this end the government and UNDP and UNICEF have looked at possible evacuation sites.
- 1.5. Cyclones and Mudslides/Ash-slides:** Other concerns for disaster preparedness apart from the volcano, relate to cyclones, although they are unlikely to pose a serious risk, the outbreak of disease, mainly cholera, and much more recently, due to the recent phreatic eruptions, flooding caused by mudslides, or rather ash slides from the ash deposited by Karthala, which have caused serious disruption.
- 1.6. EWS:** Once again, there are a number of sophisticated warning systems in place, both meteorological and those related to volcanoes, but it is questionable whether they translate into useful information for those that are likely to be affected, and even if the population does receive adequate warning, what measures they would take? In the case of the tremors that have been felt recently, had it been possible to provide some sort of warning or awareness, it may also have been possible to

allay some of the fear that was induced, and perhaps to encourage people to react rationally.

Capacity and Agencies *(for details of DG ECHO funded programmes that relate specifically to disaster preparedness see Annex A):*

- 1.7. **Government Platform for Disaster Management**, the Centre des Operations de Secures, is highly enthusiastic and active, though lacking in capacity with regards to personnel, despite the energy of the person in charge, and equipment. The government does not really have the resources to fund them, although they receive some technical support from both UNDP and UNICEF (through funding from ECHO).
- 1.8. **Disaster preparedness**, UNDP and UNICEF have been active in disaster preparedness and assisting the government's disaster management platform. In this respect, the government with the assistance of UNDP and UNICEF is one of the few that has published a disaster strategy plan. The Resident Co-ordinator has some innovative ideas for turning the potential of the volcano into something positive – i.e. tapping the energy of the volcano for the benefit of the island. To this end he is also keen to arrange a workshop to a) look more carefully at the disaster preparedness situation, but b) at the same time to look at ways of exploiting the volcano.

Despite the assistance of UNDP and UNICEF the government still lacks the resources for serious disaster preparedness. The EU Delegation has looked at aspects of disaster preparedness in a broader way in the region, and may look at the covering of water cisterns on a larger scale.

- 1.9. **UNICEF Water Projects:** On the positive side, from a disaster preparedness point of view, UNICEF have successfully completed their DG ECHO funded project resulting in the covering of another 834 water cisterns. This is in addition to the 765 that were completed under the previous DG ECHO funded project.

The interesting aspect about these projects, now, is that although they were not, initially considered to be a very successful project from an emergency response point of view, although that all-important commodity, potable water, was provided in a timely way, seen from a DIPECHO point of view they are highly successful. When Karthala erupted in 2006, it was extremely noticeable that the water cisterns that were covered by the DG ECHO project were protected, whereas those in the same areas that were unprotected were contaminated. A second point that could be considered successful from a DIPECHO perspective was that these projects were community based and were implemented by the community (although the materials were supplied by UNICEF), which then led to a third aspect of the success which was that the communities came to realise how successful this approach was for protecting their extremely valuable and fragile water resources, and so, unprovoked spontaneously started to cover their own cisterns, which has

had a fourth indirect benefit a, possibly (because there still needs to be an official assessment), 25% reduction in malaria and other water-borne diseases.

- 1.10. Delegation programmes:** The EU Delegation, at the time of the evaluation were preparing new input, presumably for 10 EDF, and were interested specifically in the water sector and the programmes that DG ECHO had carried out with UNICEF – something that they could possibly expand, which would be a 5th benefit of these projects, acting as a pilot scheme.
- 1.11. The French Red Cross in conjunction with a young Comoros Red Cross and Red Crescent society** are involved in water projects on the island recognising the fragility of the current systems. In the past they have been a partner of UNICEF's when DG ECHO has funded their projects in the aftermath of eruptions of Karthala. This liaison with the French Red Cross brings with it a useful connection to PIROI which is the French Red Cross' bi-lateral emergency response system for the Indian Ocean Islands – based in Reunion. It is an emergency response unit similar to the ERUs that are now being set up as part of an IFRC response system to major disasters. PIROI has been activated in the past to assist in the aftermath of such things as Cyclone Gafilo in Madagascar and the earlier eruptions of Karthala. The main system of response is through the pre-positioning of stock.

8. Madagascar

- 2.1. Background:** The eastern, or windward side of the island is home to tropical rainforests, which are also most susceptible to cyclones and flooding, while the western and southern sides of the island, which lie in the rain shadow of the central highlands, are home to tropical dry forests, thorn forests, and are susceptible to drought, especially the extreme south, although the south east can suffer from both cyclones and drought.

Thus, Madagascar is one of the most disaster-prone countries in Africa. Unlike Mozambique, another of the more disaster-prone African countries, it does not suffer badly from the HIV/Aids pandemic, although due to its poor sanitation practices and inadequate drainage, especially in some of the urban areas, it is highly susceptible to cholera. As can be seen from the table below, however, the most common disasters to strike are the cyclones, which very often bring with them considerable flooding and latent problems of water-borne diseases, cholera, dysentery and malaria. Whilst the evaluation was taking place at least 20,000 people were stranded by flooding in Antananarivo itself with the usual potential for outbreaks of cholera, the more latent threat of malaria, and even bubonic plague.

Hazards:

2.2. Top 10 Natural Disasters⁵:

Table 3:

	Disaster type	Date	N° Affected		Disaster type	Date	N° Affected
1.	Wind Storm	14-Feb-1972	2,510,056	6.	Drought	Nov-2002	600,000
2.	Drought	1981	1,000,000	7.	Wind Storm	24-Jan-1997	600,000
3.	Wind Storm	7-Mar-2004	988,139	8.	Wind Storm	13-Jan-1994	540,043
4.	Drought	Apr-1988	950,000	9.	Wind Storm	9-May-2002	526,200
5.	Wind Storm	17-Feb-2000	736,937	10.	Wind Storm	10-Jan-1976	300,000

Table 4:

Type	# of Events	Killed	Injured	Homeless	Affected	Total Affected
Drought	5	200	0	0	2,795,290	2,795,290
<i>Avg. per event</i>		40	0	0	559,058	559,058
Epidemic	3	1,652	0	0	40,203	40,203
<i>Avg. per event</i>		551	0	0	13,401	13,401
Flood	5	45	17	4,482	126,711	131,210
<i>Avg. per event</i>		9	3	896	25,342	26,242
Insect Infestation	1	0	0	0	0	0
<i>Avg. per event</i>		0	0	0	0	0
Wind Storm	34	2,009	3,136	713,704	7,310,652	8,027,492
<i>Avg. per event</i>		59	92	20,991	215,019	236,103

2.3. Delegation attitude and programmes: Useful meetings with the Delegation in Antananarivo, confronted the evaluation team, again with divergent views on the necessity or otherwise of a DIPECHO intervention. A regionally coherent Delegation response throughout the region is that they deeply appreciate the ability to call on DG ECHO at short notice, but are not necessarily keen on a DIPECHO intervention, feeling that the problems are usually too long term or structural to warrant a DIPECHO response, whilst at the same time they are not so much of a massive emergency nature to require a major DG ECHO response. On the other hand, as with the other countries visited, the aid agencies, especially CARE, consider that a DIPECHO intervention would be most appropriate. Once again, it should not be necessary to consider a DIPECHO intervention and the current work of the Delegations in mainstreaming disaster preparedness as mutually exclusive. Both instruments of the Commission have different strengths, and the benefit of a DIPECHO intervention over a long-term Delegation

⁵ Source: "EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net - Université catholique de Louvain - Brussels - Belgium

programme, or as well as a Delegation programme would be that it can be implemented directly with the affected community quickly, whilst some of the Delegation projects that are mainstreamed into more global approaches take time to filter down to the affected populations and benefit them.

- 2.4. Field Visits: Early warning systems, cultural habits:** The mission visited a number of villages in the South where they were affected by the severe drought that has been prevalent for at least two years. Although more villages were visited some points below from three of them, which illustrate some of the issues involved in a drought response:

Andranovory, one of the villages visited on the field mission, is small village of approximately 2,000 people, located near the coast and the main source of livelihood is fishing that was visited by the evaluation team. At a school that was visited, was an Impluvium, with a rain water collecting concrete pavement of 35m x 20m feeds an underground tank of about 3m x 15m and 3 m deep which is divided in two equal positions. Villagers reported that since 16 December 2006, it only rained on 14 February 2007. Whilst the impluvium was essentially built for the school, in severe situation like now, the water from one tank is rationed to provide two 20 litres buckets per family every alternate days. When the tank dries up, people resort to fetching water from the nearest stream, 10 km away whilst those that can afford would buy from vendors up to 500 AR per 20 litre bucket. At the time of the visit, food relief was being distributed on the 'Food for Work' programme by Care International. One woman, a man and the vice-mayor were individually interviewed and provided these main points: The weekly relief food for work, meant for maintenance of the access road, was insufficient. Each family received 10 kg rice, one and half kg beans and 7 kg sorghum. Rice was consumed for breakfast and dinner, whilst for lunch they ate the cactus fruit. People preferred rice, described to be tastier than sorghum. No specific preparedness measures existed and people said they depended more on fishing from the sea and/or supplemented this with wild tubers and the cactus fruit. They claimed to grow beans, maize, cassava, sweet potatoes and rear cows. Sorghum was not popular because they said they lacked seeds, since the 1978 famine that depleted them. Some people also believed that Sorghum's pollen was toxic to the cows if consumed. People maintained that maize yielded faster than drought resistant sorghum.

Anjamahavelo: Anjamahavelo is village in the in-land district of Ifotaka community where Care International reported to have twice distributed foods and claimed the people's nutrition had only recently improved. On the other hand, the community appeared to be proactively engaged in self help activities. They said the government helped establish 3 associations for manufacturing of agricultural tools, domestic gardening, and cattle breeding. A guided tour of the low-tech Agricultural Tools workshop was conducted. A ground water well was inspected from which the treadle pump abstracts to irrigate the maize, pumpkins, cassava, in furrows upland. This community proudly produces ploughs and treadle pumps for other communities on order, raising some workshop operational income. What the

people requested was support for raw materials, construction of small dams, or drilling of boreholes. FAO had trained some of them on how to drill but tools and materials were lacking. This was an interesting visit and we left late in the evening.

- 2.5. Micro Credit at Bahera:** At Bahera, a micro-credit FIVOY Community bank was visited. In Malagasy language, FIVOY is "Fitehirizana Vola Ifampisam" which literary means "Save Money through Loans." The bank was established in December 2005 and over the years membership has grown to 387 memberships and includes almost all farmers in the area. Membership fee is about 2,000 AR with the loan-scheme participation fee of 10,000 AR. The bank leases out locally made agricultural tools (some of which are from Anjamahavelo), such as plows, harrowers and weeders. For instance, a small weeder is leased out at 20,000 AR payable for in 3 years at 3% per annum interest with a start up down payment of 20%. Please see some of the attached photos.
- 2.6. Care Projects:** The mission met some farmers involved in crop diversification, supported by Care, at Soamierane and Ifaranita. Ground water abstracted by the treadle pump is used to irrigate the gardens. Healthy looking crops seen in the gardens included cucumber, carrots, red pepper, and egg plant. One farmer interviewed disclosed that in the last one year since he started the scheme he has increased his former income of 30,000 AR per month to 35,000 AR per week now. The lady at the next stop was realizing 100,000 AR per month from growing chillies and a variety of vegetables. She was now in search of additional money to build a house nearby to control theft of her crops. She did not know about FIVOY bank scheme and Care promised to return, pick her up and introduce her to the Fort Dauphin branch. At Mandiso, Care has assisted the community to build a 25 meter long and half meter deep barrage to divert river water through canals to rice fields and now supporting agricultural extension services for the community. The barrage (or dam) is in good condition but only requires installing gauge plates to regularly monitor the flow. This data would be vital to detect and upstream flow interferences and useful for allocating water to the farmers equitably to avoid possible conflicts in future. Care also supports construction of small community earth dams, whose nearest site was 8 hours of drive away, no time to visit.
- 2.7. General Comment:** The Amboasary district that was visited by the evaluation mission presents an ideal situation of consideration for drought disaster preparedness. The arid area has pockets of proactive communities that are ready to be assisted for improvement. The village of Anjamahavelo is a unique case from where lessons could be drawn since the community has demonstrated the innovativeness to manufacture the much desired low-tech agricultural implements. The unique FIVOY micro credit scheme is one that can easily be replicated anywhere in the area or the developing world and encourage drought prone communities to maximize their efforts in food production in good times to later generate higher profit but indirectly enhancing food availability increase during the drought times. The EWS system has a gap because there is no mechanism to translate the early warning to the grass root level communities. The burden given

to the Mayors, who have their own capacity limitations, may not reliably warn the communities at the similar rate as that for the EU and the other agencies.

Capacity and Agencies (for details of DG ECHO funded programmes that relate specifically to disaster preparedness see Annex A):

- 2.8. CARE projects in drought mitigation and flood disaster preparedness:** CARE is beginning to look at some innovative approaches towards both drought preparedness and flood preparedness strategies. As far as drought mitigation in the South of Madagascar is concerned they are looking beyond the constant rehabilitation of boreholes or drilling new boreholes and are looking at water catchment systems such as dams and even impluviae (an *impluvium* is the sunken part of the atrium in a Greek or Roman house. Designed to carry away the rainwater coming through the compluvium of the roof, it is usually made of marble and placed about 30 cm below the floor of the atrium. In principle, the system used on the Comoros Islands to catch rainwater is similar, but instead of a sunken floor they use the roof of the house). They are also looking at irrigation systems. As far as cyclone/flood mitigation/preparedness is concerned, they are looking at the construction of a single building (probably a school) in a cyclone/flood prone village built from aluminium tubes sunk into concrete foundations. This should make them relatively flood proof, and if they are affected by a cyclone they can be quickly rebuilt. CARE reckon that they could construct 150 such buildings (in 150 different villages) for less than €1 million. This is, possibly, an example of a suitable small scale, community-based, low-tech project that would suit a DIPECHO intervention. In general, Care is involved in sensitizing communities in the projects of malaria prevention (through use of mosquito nets and cleaning the soundings), governance, agriculture, nutrition and emergency response. The governance project called ACCORD is financed by EU and for which Care assists in strategic planning and training of the district administrators.
- 2.9. SIRSA/SAP:** At Ambovombe three EU-funded institutions were visited: SAP and SIRSA are the two organizations dealing with Early Warning Systems and vulnerability assessment (that started in 1996) whilst GRET, a French NGO, is involved in developmental activities. The primary informed groups of the EWS of SAP/SIRSA are the EU, government and other aid organizations working in the area. They are alerted 3 months in advance of any potential crisis related to food and economic situations. Bulletins are normally released in March and confirmed in June. It is assumed that once the mayor is provided with a copy of the warning, he would use his system to disseminate the message to the communities, which is doubtful, because although the system is quite thorough it falls down inasmuch as the mayor lacks the capacity to adequately transmit the information to the population that is likely to be affected – but that is the nature of this sort of EWS and one has to assess whether it is more beneficial to inform the agencies that can help provide food when it runs out or to inform a vulnerable population that in a three months time they are not going to have any food of their own. Drought in the area is known to have a cyclic recurrence of every 10 years.

- 2.10. GRET** has been in operation for the last 4 years with the prime purpose to reduce food insecurity through long term interventions. Since the 1991/92 famine, GRET speculates that 2007 is likely to be difficult in relation to food security. The institution is involved in micro-credit financing programmes, micro entrepreneurship, training/marketing, nutritional programmes and seed production. GRET has no experience in Humanitarian programmes but developmental. GRET identifies water shortages to be the main problem in the area and exacerbated by weak copying capacities of the communities.
- 2.11. UNICEF:** UNICEF has been highly active during the recent flooding, especially in the capital Antananarivo, but they felt that they had insufficient resources to deal with the situation. Their main point was that more needs to be done in the way of disaster preparedness in Madagascar, that Madagascar tends to get neglected, that there is considerable potential for a major disaster, whether it is drought in the South, the destruction of crops by flooding in the South East, by serious outbreaks of disease or severe destruction by cyclone. They considered that although the government's national platform for disaster management was working much better than it did in the early 2000s in the aftermath of Gafilo, the management was still too centralised.

UNICEF have demonstrated some innovative thinking in terms of disaster preparedness, especially in building cyclone/flood proof structures in some of the vulnerable areas, using aluminium tubing sunk into concrete. This is the sort of project that a DIPECHO intervention could support.

2.12. FAO:

2.13. WFP

9. Malawi✓

- 3.1. Background:** In essence, Malawi is a densely populated country, whose economy is heavily dependent on agriculture, with few exploitable mineral resources. Traditionally, Malawi used to be self-sufficient in its staple food, maize, (although this was only relatively recently introduced in Malawi, by Dr. Hastings Banda), and during the 1980s exported substantial quantities to its often drought-stricken neighbours. Agriculture represents 38.6% of the GDP, accounts for over 80% of the labour force, and represents approximately 80% of all exports. Nearly 90% of the population engages in subsistence farming. Smallholder farmers produce a variety of crops but are generally fixated on maize. Other crops that can be grown, especially in some of the drought prone regions are beans, rice, cassava, groundnuts, and tobacco. The agricultural sector contributes about 63.7% of total income for the rural population, 65% of manufacturing sector's raw materials, and approximately 87% of total employment. This dependence on agriculture is important because it renders the population extremely vulnerable to drought.

The evaluation took place at an appropriate time in Malawi as they have been having some torrential rains which have led to the usual, although this year possibly worse, flooding in the Chikwawa Valley in the South of the country, and one or two cases of cholera were occurring, although nothing on a significant scale. With all the rain and forecasts of good crops, there is an extreme contrast to the previous years of drought which everybody seems to have forgotten, providing an interesting manifestation of the sometimes short-sighted outlook that governments, communities, and even donors have for their prospects, possibly leading to a false sense of security or optimism for the future.

- 3.2. Greater vulnerability to Disasters:** Many agencies, including the World Bank, believe that in Malawi, there is an increase in natural disasters, particularly drought, which can be attributed to ‘global warming’, in the effect that that has on changing meteorological factors especially rainfall patterns. At the same time, there are many man-made practices, and lack of regulation that exacerbate the problems, particularly, for example, the rapid depletion of fish stocks due to unregulated, uncontrolled fishing – although Malawi would point out that this is also a factor of a lack of regional co-ordination because much of the fishing in L. Malawi is obviously done by the countries that share it with Malawi, Tz and Mozambique.

Hazards:

3.3. Tables of Disasters, Malawi⁶

Table 5:

	Disaster type	Date	N ^o . Affected		Disaster type	Date	N ^o . Affected
1.	Drought	Apr-1992	7,000,000	6.	Flood	Jan-2001	500,000
2.	Drought	Oct-2005	4,500,000	7.	Flood	Feb-1997	400,000
3.	Drought	Feb-2002	2,829,435	8.	Flood	Dec-2002	246,340
4.	Drought	Feb-1990	2,800,000	9.	Flood	Mar-1991	150,000
5.	Drought	1987	1,429,267	10.	Flood	Jan-2002	150,000

Table 6:

Summarised table of Natural Disasters in Malawi from 1967 – 2006						
Type	# of Events	Killed	Injured	Homeless	Affected	Total Affected
Drought	5	500	0	0	18,558,702	18,558,702
<i>Avg. per event</i>		100	0	0	3,711,740	3,711,740
Earthquake	1	9	100	50,000	0	50,100
<i>Avg. per event</i>		9	100	50,000	0	50,100
Epidemic	11	1,479	0	0	46,040	46,040
<i>Avg. per event</i>		134	0	0	4,185	4,185
Flood	21	579	0	312,800	1,390,090	1,702,890

⁶ Source: "EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net - Université catholique de Louvain - Brussels - Belgium

<i>Avg. per event</i>		28	0	14,895	66,195	81,090
Wind Storm	1	11	8	0	0	8
<i>Avg. per event</i>		11	8	0	0	8

3.4. General: Malawi's economic reliance on the export of agricultural commodities renders it particularly vulnerable to external shocks such as drought, declining terms of trade and disease, in particular the impact of HIV/Aids. High transport costs, which can comprise of over 30% of its total import bill, constitute a serious impediment to economic development and trade. Malawi has to import all its fuel products. Paucity of skilled labour, exacerbated by the damage to the labour market by HIV/Aids (apparently, for example, nearly 30% of civil servants in Lilongwe are HIV positive); difficulty in obtaining expatriate employment permits; bureaucratic red tape; corruption; and inadequate and deteriorating roads, electricity, water, and telecommunications infrastructure further emasculate economic development in Malawi, although recent government initiatives targeting improvements in the road infrastructure, (funded by the EU) together with private sector participation in railroad and telecommunications, have begun to render the investment environment more attractive.

3.5. Food Security: Nevertheless, the FAO report from June 2005, for example, stated that 4.22 million inhabitants of Malawi, ¼ of the population, would not have enough food in 2005 to survive. In the south of the country, the rate of the population affected was expected to be between 55 and 76 per cent. At the end of November 2005, the first deaths resulting from drought were recorded. Whilst these figures may have been overestimated by the UN, even if there was a 50% margin of error, 2 million people would still represent a major catastrophe.

3.6. Drought: Malawi's staple food is maize (despite its' relatively recent, historically, introduction) but like other countries in Southern Africa, until this year, 2007, Malawi has been constantly affected by drought since 2002, with food generally scarce for almost one third of the population. In 2003, 30% of the population was affected.

These repeated droughts are caused by different factors including:

- Widespread monoculture,
- Limited agriculture policies,
- Poor distribution of fertilizers,
- Poor governance/corruption,
- HIV/Aids,
- Malaria,
- Other diseases, cholera, bilharzia,

3.7. Reasons to be Optimistic? The situation with regard to disasters and hazards in Malawi is, nevertheless, ambivalent. On the one hand some organisations such as the EU were moderately optimistic that such initiatives as 'crop diversification',

the ‘strategic grain reserve’, the amount of funding that the Delegation still had available from the €45 million (approximately €30 million left) greater awareness in the government as a result of advocacy, were blossoming and would ultimately be more effective in reducing risk or increasing the resilience of the vulnerable population to risk than specific shorter-term measures such as disaster preparedness, although that did not necessarily mean that disaster preparedness could not be complementary. On the other hand, the UN organisations were strong in pointing out that malnutrition figures were an indication of acute problems that would not disappear overnight, and that 65% of the population were living in poverty; that HIV/Aids was having a devastating effect; that poor farming practices and constrained mindsets (or ‘poverty of the mind’ as one interlocutor described the monoculture and dependence on maize) meant a limited capacity in farming in the medium term. It was also pointed out that more sensible agricultural practices, the elimination of monoculture, the use of irrigation, the cultivation of water catchment methods, and cropping around L. Malawi, could eliminate drought related problems.

Currently, however, all of the aforementioned factors meant that there was a weakened population, which could only be helped by some form of disaster preparedness to make them more resilient.

3.8. Impact of various natural disasters: When questioned on what the most serious hazards in Malawi were, almost all people cited HIV/Aids as the number one hazard. Excluding drought and HIV/Aids, however, the most serious hazards were considered to be, flooding, outbreaks of disease, in particular cholera. Many agencies, however, pointed out that the flooding was not so serious as it was sometimes made out to be, that it was an annual occurrence and the affected population were well aware of the problems, and for various reasons chose to remain in the areas concerned.

3.9. Floods: The main rain bearing systems for Malawi are the Inter Tropical Convergence Zone (ITCZ) and Congo air mass and occasionally cyclone induced. According to assessments carried out by Government and WFP an estimated 35,576 households were affected by the floods, which occurred in Chikwawa and Nsanje during the last week of December of 2005 and the first days of January 2006. Similar incidences prevailed during the evaluation mission to the area in February 2007. Many families were forced to evacuate their houses and stay in homes of relatives and friends residing on higher ground. Government and other agencies have initially responded to the needs of the flood affected communities by providing bags of maize flour, salt, food and non-food relief items such as rolls of plastic sheets, plastic cups, and plastic plates. In addition, UNICEF made several survival kits available to Government for immediate distribution, each containing blankets, mosquito nets, tarpaulins, a jerry can, soap, bottles of water guard, cooking utensils and pots.

Capacities and Agencies *(for details of DG ECHO funded programmes that relate specifically to disaster preparedness see Annex A):*

- 3.10. DG ECHO versus DIPECHO:** An official of the Delegation in Lilongwe pointed out that they had been so pleased with the quick response of DG ECHO in 2006, the appropriateness of their programmes and the efficiency and professionalism with which they were executed, that he was happy enough to know that he could call on DG ECHO without feeling the need for a DIPECHO project specifically within Malawi. This, however, was not the view of most of the UN agencies, Red Cross and NGOs that we spoke to, who considered that despite the present forecasts of a good harvest, and an end of the current drought, Malawi was susceptible to a number of disasters – drought, outbreaks of cholera, and flooding. Nevertheless, one always has the cynical thought at the back of ones’ mind that many of the NGOs and UN agencies are eager to receive additional funding for whatever purpose and through whatever source to stay in business in the country.
- 3.11. Disaster Preparedness Projects:** Although the whole concept of DRR appears to be more of a highlighted issue in Malawi than it was, for example, during the large Cholera outbreak in 2002/3, with the exception of UNICEF very few agencies or donors had specific disaster preparedness programmes. Most of them had some form of DRR mainstreamed into their projects, albeit sometimes peripheral. The EU, for example, were promoting projects that increased awareness; were advocating with the government, especially on producing a national disaster strategy; were pursuing projects in agriculture that built the resilience of the communities against drought, i.e. crop diversification and conservation farming; and included the upgrading of roads to become flood resistant. The EU Delegation would also argue that not only is the strategic grain reserve working well, but the concept and strategy of the strategic grain reserve is an indirect form of Disaster Preparedness. Most of the NGOs that we have spoken to so far included various forms of disaster preparedness through building awareness amongst communities – mostly focusing on food security, alternative livelihoods (especially the fishermen) and sanitation against the outbreak of cholera.
- 3.12. UNICEF:** UNICEF is actively engaged in disaster preparedness through the pre-positioning of stocks. Their warehouse has significant ‘pre-positioned’ stocks that include preparedness items against the outbreak of cholera, against serious problems with malnutrition, and against displacement through flooding. Most important of these are the cholera outbreak stocks.
- 3.13. Department of Water Development (DWD):** In relation to floods, the DWD is responsible for flood forecasting, monitoring and operations of Early Warning Systems (EWS) across the country. DWD stated that the most vulnerable areas of both drought and floods are in the lower Shire River Basin. Here floods are generated at the confluence (Chiromo) of the Shire with its main tributary, the Luo River, originating from the high Mulanje Mountains. These mountains serve as a damping obstacle for the cyclones from the Indian Ocean, thereby inducing high flows in the Luo and subsequently causing backwater effects upstream of the Shire river from that point. For some years the automated real-time EWS, once

supported by UNDP/WMO, has been non-operational. DWD now depends on manual labour to observe the water levels on the Luo and transmit information by cell phone or telephone to the DWD hydro-data centre in Lilongwe from processing. From here alert messages, at different levels of intensity, are synthesized and passed on for Radio broadcast. Ironically, any high flows that happen at night are usually unchecked because it is not safe for the observers. This is one major draw back with the present early warning mechanism.

3.14. Department of Poverty and Disaster Management/World Bank: The Department of Poverty and Disaster Management (DOPDM) is the national platform for Disaster Management. It was formed or restored in the aftermath of the floods in 2001 and the huge cholera outbreak in 2002/3, when it was realised that the response to disasters at a national level was slow, inefficient, and lacking in resources. For a while it was vigorous, but the latest cholera outbreak in 2006 seemed to indicate that it had lapsed slightly. The World Bank, along with much advocacy from some of the donors and the UN, is currently trying to reinvigorate the government, by preparing a national Disaster Strategy, something which was last done (though never really published or disseminated) in 1989. At the moment there is no national disaster response/contingency plan, although, once again this is something that the World Bank has been trying to promote.

3.15. The DOPDM considers floods, drought, HIV-Aids, and cholera as the frequent disasters of Malawi. In recent years, recurrences of floods were increasing. Chikwawa and Nsanje districts suffer from both extremes of drought and floods, sometimes concurrently. DOPDM co-ordinates disaster management activities through the District Commissioner, head of the district assembly of government departments, at the local level. Of the 5 UNDP supported disaster management contingency plans across the country only one district has so far managed to review one of them once. Lack of funds was said to hamper disaster preparedness efforts, despite the limited assistance from UNICEF and UNDP. Early Warning System is ineffective even though the department of Meteorology provides seasonal forecasts. No hazard risk assessments have so far been carried out yet. One of the interventions DOPDM foresees is a structural measure of constructing protective dykes and deepening the rivers to accommodate peak flows. Skilled capacity strengthening needs to be considered both at DOPDM and at districts to cope with the situation. **Chikwawa District Commissioner (DC)**

3.16. The DC is the highest administrative authority in the district and meeting with him was vital during the evaluation in Malawi, where he highlighted some of the typical issues that face disaster preparedness strategies – mainly the marginalisation of some groups of people. The DC revealed that moving people from the flood prone villages was a big challenge because some were resisting. Lately, some people along the Shire River were reportedly accusing the South African Sugar Company, Ilovo, of deliberately causing the floods in order to seize their land once they were evacuated. Some chiefs were understood to be resisting displacement for fear of losing the land to rule over. Other people preferred to stay on so that they benefit from the dependable rations that were provided once

the flood occurs. The DC stated that even though the idea of relocating the affected people to higher grounds was sound, proper sites were not yet identified and provided with incentives such as safe drinking water supplies and other social amenities. His thoughts were of assisting the community to establish two homes of which a permanent one would be on uplands whilst a simpler shelter in lowlands use would be useful for farming convenience. Otherwise he felt that a structural solution of deepening the Mwanza and Nkombezi rivers, the Shire river tributaries, was a long term but effective option to contain the high volumes of flood flows. These sorts of solutions are unsuitable for a DIPECHO intervention, but nonetheless they illustrate the longer-term structural nature facing any disaster preparedness strategy.

- 3.17. Malawi Red Cross and IFRC:** as with the Zimbabwe Red Cross, the Malawi Red Cross, through the active promotion of the regional office of IFRC are engaged in DRR and more specifically in disaster preparedness. Along similar lines to the Zimbabwe Red Cross they consider that the most effective disaster preparedness should be done at community level with awareness and training programmes. In addition, they are training disaster response teams who will be focusing on drought response, flood response, and outbreaks of disease, mainly cholera.
- 3.18. CARE:** Time was not available to visit CARE projects, but meeting with them showed that they are advanced in their thinking towards disaster preparedness in Malawi. They consider that their general approach is more proactive than reacting to emergencies, and that although initially they did not consider disaster preparedness as part of their initial strategy in Malawi but now they are about to write emergency preparedness into their plans there. The good point that CARE made was that what one saw in Malawi was serious but chronic vulnerability and it is difficult to know how to put disaster preparedness into context, or what disaster preparedness measures should be taken in such a slow-burning humanitarian situation. CARE was adamant that any disaster preparedness should be community based, that such things as community based nutritional programmes should definitely include surveillance systems. CARE is looking at early warning indicators for nutritional monitoring. These sorts of programmes that DG ECHO has funded in Malawi, which include community based surveillance systems, could be seen as a DIPECHO type strategy, but in order to be effective they have to be carefully monitored. In a previous visit to Malawi looking specifically at the nutritional aspects, one of the more noticeable aspects, was that what was supposed to be happening in these types of projects as described in the HQs did not always happen on the ground (although this was definitely not specific to CARE) and that one thing that was lacking for a surveillance project was a lack of outreach.

Another important approach from CARE is to look at disaster risk prediction, and this is something that any agency looking at disaster preparedness in the region should consider. It boils down to doing proper assessments, and in Malawi accurate evaluations of the situation are badly needed. Already, as has been

mentioned earlier, the spectre of drought has already been forgotten about, with the recent rain and benevolent harvest. But... this does not mean that it should not be guarded against in the future.

- 3.19. Oxfam, Water for People and World Vision NGOs:** Oxfam activities are mainly focused on livelihoods and HIV-AIDS issues, though occasionally it participates in emergencies in the area. Oxfam's area of focus is the southern region of the country where the most disadvantaged live. In 2001-2002 the NGO was involved in urgent humanitarian aid and response to the severe cholera outbreak. In 2002-2003 it was funded by DG ECHO to provide safe drinking water supplies. Recently, Oxfam undertook an impact assessment which indicated that capacity is required not only in partner institutions but also in Oxfam itself. Oxfam is currently developing a strategy to assess community based early warning systems and its linkage with national system.
- 3.20. Water for people** is basically a base of the USA-Water for People NGO whose focus is on developmental activities, such as water supply and sanitation and health. Established in 2002 Water for people is increasingly expanding its presence in Chikwawa area.

10. Mozambique

- 4.1. Background:** As with Zimbabwe and Malawi it was an opportune time for the evaluation to be in Mozambique, with a 'red alert' issued for the flooding in the Zambezi Valley, the government about to issue a state of emergency, (although some departmental infighting prevented this, initially, and talk of 'coercive' rescues of affected population). Thus, we were provided with a chance to see the proactive measures taken by the INGC (the disaster management platform of the Government of Mozambique), which at national level appears to be working well, but it is not so clear how that translates at 'grass roots' level. At the time of the evaluation a number of key factors in disaster management were in play in Mozambique, perhaps one of the most significant being the discharge and inflow rates of the dams which were bordering on the unsustainable, meaning the opening of gates to release the flow, potentially leading to severe flooding further downstream – and if the gates are not opened there is severe flooding upstream caused by the backflow from water unable to be released. At the same time the critical issue was also the cyclones, and whether one would appear in the Mozambican Channel. The effect that that has is to force the tide back, which means that the river water cannot discharge into the sea, with all the consequences further upstream. This is the sort of scenario faced by Mozambique on a frequent basis, with regard to disaster preparedness.

Hazards:

4.2. Tables of Disasters, Mozambique⁷

Table 7:

Table of 10 Disasters with Greatest Impact in Mozambique							
	Disaster type	Date	N ^o . Affected		Disaster type	Date	N ^o . Affected
1.	Drought	Jan-1979	6,000,000	6.	Drought	May-2005	1,400,000
2.	Drought	1981	4,750,000	7.	Drought	Mar-2002	600,000
3.	Flood	Jan-2000	4,500,000	8.	Flood	Jan-2001	549,326
4.	Drought	Mar-1991	3,300,000	9.	Flood	Jan-1971	500,000
5.	Wind Storm	Mar-1994	2,502,000	10.	Flood	Feb-1981	500,000

Table 8

Summarized Table of Natural Disasters in Mozambique from 1956 to 2006						
Type	# of Events	Killed	Injured	Homeless	Affected	Total Affected
Drought	9	100,068	0	0	16,277,500	16,277,500
<i>Avg. per event</i>		11,119	0	0	1,808,611	1,808,611
Earthquake	1	4	36	1,440	0	1,476
<i>Avg. per event</i>		4	36	1,440	0	1,476
Epidemic	16	2,409	0	0	312,091	312,091
<i>Avg. per event</i>		151	0	0	19,506	19,506
Flood	20	1,842	15	49,500	8,498,151	8,547,666
<i>Avg. per event</i>		92	1	2,475	424,908	427,383
Insect Infestation	1	0	0	0	0	0
<i>Avg. per event</i>		0	0	0	0	0
Slides	1	87	0	2,500	0	2,500
<i>Avg. per event</i>		87	0	2,500	0	2,500
Wind Storm	13	603	2,082	530,050	2,657,350	3,189,482
<i>Avg. per event</i>		46	160	40,773	204,412	245,345

4.3. Disaster Prone! Mozambique, as the basin for many of the largest rivers in Africa – the Zambezi and the Limpopo, and being in the track of cyclones coming off the Indian Ocean is one of the most frequently and badly affected countries in Africa in terms of sudden onset natural disasters. Table 7, which lists only the top ten natural catastrophes affecting the largest numbers of people in the past two decades, shows the serious threat that hazards such as droughts, floods and

⁷ Source: "EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium

tropical storms pose to vast parts of the population. At the same time, the social, economic and political structures and institutions in the country, which is still one of the poorest and least developed in the world (ranked 170 out of 175 in the Human Development Index, 2003 figures), are still relatively weak after the war of independence and the legacy of the 16-year-long civil war, which only ended in 1992 still contributes to a particularly high level of vulnerability in relation to natural disasters. The risk resulting from these factors became very obvious when, in spring 2000, the highest amounts of rainfall for 50 years, in combination with four cyclones, led to a flood disaster of unknown extent. Reaching from the Rio Maputo in the south to the Rio Pungwe in Sofala, vast parts of the south and centre of the country were struck, and Mozambique's coping capacities were overwhelmed. Between 700 and 800 people died, and many thousands lost their belongings and houses. 4.5 million people in total were affected (see Table 7).

4.4. Mozambique and Floods: Mozambique has experienced floods for a long time. Major floods have been recorded in all the international river basins shared by Mozambique, with the exception of the Rovuma. For the national river basins, only the Lucungo has experienced floods of some significance. Floodplains are situated adjacent to rivers and coasts. Most affected areas are floodplains which are 'flood-prone' and are hazardous to people, property, animals and other assets. The international river basins visited during the evaluation were Limpopo and the Zambezi.

Four countries share the Limpopo river basin: Mozambique, Botswana, South Africa and Zimbabwe. Mozambique finished, in 1977, the construction (1st phase) of a large dam, Massingir, on the Elephants river, the most important tributary of the Limpopo river. The overwhelming floods of 2000 that occurred in the Limpopo basin were caused by a stationary tropical depression over Mozambique, South Africa, Botswana and Zimbabwe, during the first two weeks of February, originating a first flood wave. While the Limpopo river was still in flood, the cyclone "Eline" crossed Mozambique and caused heavy rainfall in South Africa, Zimbabwe and Botswana, originating the second and more damaging flood wave. The situation in the Lower Limpopo became even worse when the Massingir reservoir also received a heavy flood of the Elephants river, forcing the dam to raise enormously its discharge that then topped up to spill-over the Limpopo river's own floodwaters⁸.

At the downstream end of the Zambezi, in Mozambique territory, the river is shared with other seven SADC countries of Angola, Namibia, Botswana, Zambia, Zimbabwe, Tanzania and Malawi. The first five drain to the main river while Tanzania (through Lake Nyasa) and Malawi have a share in the Shire basin. Cahora Bassa Dam in Mozambique together with Kariba dam between Zambia and Zimbabwe, have a total reservoir storage that is a huge reserve for regulation and flood control but the main purpose of both dams is hydropower production.

⁸ Source: Álvaro CARMO VAZ: Coping with Floods – the Experience of Mozambique; 1st WARFSA/WaterNet Symposium: Sustainable Use of Water Resources, Maputo, 1-2 November 2000

The biggest flood⁹ that occurred in the Zambezi basin since the Independence was in March 1978. Both Kariba and Cahora Bassa reservoirs were almost at full capacity when intense and prolonged rainfall in large areas of the basin originated the biggest ever flood into Kariba. Due to the state of war at that time between Mozambique and the former Rhodesia, there were no direct communications between Kariba and Cahora Bassa. The information would be sent from Kariba to the headquarters of 'Hidroeléctrica de Cahora Bassa' in Portugal that then would send it to Maputo to be conveyed to Tete and finally to the operators of Cahora Bassa, with a total delay of one to two weeks. Therefore, when Kariba successively opened the spillway gates, Cahora Bassa did not have a complete knowledge about that, so it reacted late when the flood discharges of Kariba arrived. The reaction was to open almost immediately all the 4 spillway gates of Cahora Bassa that were still closed, thus creating an enormous flood wave that, adding to the floodwaters of the tributaries located downstream of the dam, completely flooded the Lower Zambezi.

Conclusion: What this illustrates is the supreme importance of a) international/regional communications in flood and dam management, and b) the need for careful dam management, which extends to the maintenance of dams so that they are able to be managed without causing any instability in the dam structure and thereby triggering an even greater flood disaster.

- 4.5. Climatic variability:** In addition climatic variability in Mozambique can always lead to one or more consecutive years with below average precipitation. The reasons for this are to be found in the global climate system, in particular the 'El Niño' phenomenon, which arises in certain years and is caused by increased temperatures in the Pacific Ocean. It leads to high temperatures and low precipitation in southern Africa, whereas its counterpart, 'La Niña', leads to disproportionately high precipitation and thus the danger of floods.
- 4.6. The initial thoughts on Mozambique** would suggest that it is an obvious candidate for a disaster preparedness intervention with its susceptibility to cyclones, flooding, and cholera as well as the longer-term problems of drought and food security (exacerbated by monoculture, poor water management, the overarching issue of HIV/Aids and a dependency culture which considers that if you wait around for long enough an NGO will turn up to fix your water-pump, hand out food, and that 'disaster preparedness' to the local population means preparing yourself to receive food aid). The EU delegation, however, believed that there were reasons to be optimistic. In their opinion, although there is an obvious need for disaster preparedness in Mozambique this was something that should be handled by the government with its improving decentralisation systems; there was less of a role for international agencies whose transitory nature could not provide the sort of sustainability needed for an effective long-term approach to

⁹ Álvaro CARMO VAZ: Coping with Floods – the Experience of Mozambique; 1st WARFSA/WaterNet Symposium: Sustainable Use of Water Resources, Maputo, 1-2 November 2000

disaster preparedness. This view makes sense but only if one is confident those decentralisations of disaster preparedness systems reach the people that need it most – the people in the affected areas.

Capacity and Agencies *(for details of DG ECHO funded programmes that relate specifically to disaster preparedness see Annex A):*

- 4.7. Gaps?** Despite the recent disasters of flooding and cyclones in 2000 and 2001, based on consultations with the government, UN, Red Cross and NGOs, and visits on the ground with the Red Cross, it was clear that there were still many gaps, that there are still areas where a community based intervention could still be appropriate. Whilst there is a distinct improvement in the capacity of the national disaster management platform (in this case INGC) at national level, led by an extremely dynamic individual, there is still no serious decentralisation, and for the communities at grass roots level, the improvement or the benefits are not obvious. It is questionable, whether therefore, what is seen is co-ordination as an end in itself, or co-ordination that translates into effective relief for the affected populations. Nevertheless, the fact that co-ordination is taking place at central government level with national agencies, NGOs and the UN can be seen as a proactive measure taken against the worsening of the flooding in the Zambezi river valley, (although at the emergency meeting that the evaluation team attended, most of the agencies were concerned that the government was not taking an active enough interest, because an emergency had not been declared, at the time, – for various partisan reasons). Once again, however, at the back of one's mind is the cynical thought that it would improve business for the NGOs, who are gradually being sidelined in Mozambique, if they could show that this current situation is an emergency and beyond the control of the government and INGC. They might receive funding that could extend their existence in a country that is gradually moving further away from assistance provided by NGOs.
- 4.8. INGC, NGOs on the ground – Disconnects?** Following visits to the operations centre during the recent emergency, the evaluation team was impressed at the pro-activeness of the INGC, the national platform for disaster management, in Maputo, which is a great improvement on 2001, although how that translates into action on the ground was not apparent during the time of the visit. The NGOs also started co-ordination meetings on their own initiative, although once again the critical thing will be to what extent they can activate themselves on the ground. This is a great improvement on 2001, but it is questionable how much decentralisation there is, and therefore the extent to which capacity building has been successful. The NGOs co-ordination meetings were subsumed into the 'cluster' approach whilst the evaluation team was there, although, as mentioned in an earlier summary the critical issue will be to what extent the cluster approach and the NGOs can activate themselves on the ground. The team spent time in the Zambezi Valley and saw little evidence of disaster preparedness measures in place amongst the communities, and certainly little in the way of **community based** early warning systems. The vulnerable populations in the Zambezi valley seem to

put much reliance on indigenous knowledge. Nevertheless, they are aware that warning systems do exist and are broadcast on national radio.

- 4.9. Lack of Imagination from Agencies on the ground?** Some of the drought mitigation projects that we have seen on the ground, in Mozambique, whilst admirable in concept, are less impressive in practice, displaying a lack of serious effort on the part of the agencies to analyse and target the needs carefully, resorting to easy answers such as the eternal last resort – rehabilitating boreholes, without considering, for example, to what extent rehabilitating a borehole is an emergency or drought mitigating measure, if the boreholes concerned have already been out of action for ten years or more.
- 4.10. GTZ projects & Early Warning Systems:** As in Malawi and Zimbabwe, once again the usefulness of warning systems needs to be re-examined – or rather defined in the context of who they are useful for, and also defined in connection with communications; it does not matter how refined the early warning system is, if the information does not filter down to the people that need it. As in the Limpopo Valley, even though there are sophisticated warning mechanisms in place, and although there is much regional communication especially in terms of water flow from the major dams, Kariba and Caboro Basso these warnings either do not translate into information amongst the local communities, or the local communities choose to ignore them, being unwilling to leave their homesteads, cattle, goats, and shambas until the last possible minute, for the economic losses that it may otherwise cause. In the Zambezi Valley, most of the communities living by the river have access to boats/canoes and they generally know the river well. Despite this, in a really major flood, they can get caught out, with all the consequent grief.

Nevertheless, GTZ, following the floods of 2001, and using lessons learned from their DG ECHO funded projects in Central America, have managed to implement a project, which is exactly the sort of thing that exemplifies well the sort of community-based, low tech, inexpensive, disaster preparedness strategy that a DIPECHO intervention should aim at. Something that a DIPECHO intervention strategy will need to examine, in the context of floods, is whether they look at preparedness on an annual basis or look at it in a cyclical way; in other words preparing for something much worse that may happen every ten years. Different approaches are required.

- 4.11. ‘Lip Service’ to disaster preparedness?** Many of the other disaster preparedness measures that have been talked about in the capital by the UN and aid agencies are in many cases just talk. There is little evidence that the tired thinking with regard to both drought mitigation and floods have resulted in little of any consequence amongst the vulnerable communities; in the meeting that we had with WFP, they said as much. As with the approach to drought mitigation, resorting to the rehabilitation of boreholes that are already out of action for 10 years, so with the floods, where there is much talk but little concrete action.

11. Zimbabwe

5.1. Background: Zimbabwe is a landlocked country in Southern Africa with a population of 11.750 million growing at 0.7% per annum with over 70% of the population living in rural areas. Zimbabwe is suffering from the HIV/Aids pandemic. Life expectancy is only 38 years and the estimated adult prevalence rate of HIV/Aids is probably well over 25%, although accurate assessments are unavailable. Droughts, floods, cyclones, HIV/Aids and other epidemics exacerbated by crumbling government structures cumulatively affect thousands of people, constituting the key elements of hazard profile of the country. Therefore, some form of disaster preparedness is vital, and perhaps an overarching requirement, if only to increase the resilience of vulnerable populations when so many normal supporting systems, particularly health, agricultural inputs, transport, can no longer be relied on.

Regular vulnerability and capacity assessments have been carried out in Zimbabwe to collect baseline data for possible interventions, but there is disagreement as to a) how effective they are, and b) how extensive they are – with much concern that they do not reach many of the vulnerable communities. Nevertheless, the Zimbabwe Vulnerability Assessment Committee (ZimVAC) and the CPU have documented significant and persistent vulnerabilities that continue to make communities susceptible to natural disasters.

In order to examine the extent of damage caused, and to come up with lessons strategies, the country has made attempts to integrate lessons learned from past major emergencies and disasters such as droughts, cyclones in order to develop a concrete disaster preparedness plan. The capacity, however, of the CPU and the local authorities to respond to these hazards has been limited. Therefore, humanitarian actors such as OCHA are called upon to assist with disaster preparedness and response plans and activities, including information management, particularly in the most disaster-prone areas

Hazards:

5.2. Tables of Disasters¹⁰:

Table 9:

Table of 10 Disasters with Greatest Impact in Zimbabwe							
	Disaster type	Date	N^o. Affected		Disaster type	Date	N^o. Affected
1.	Drought	Mar-2001	6,000,000	6.	Drought	Nov-1998	55,000
2.	Drought	Apr-1991	5,000,000	7.	Flood	Feb-2001	30,000
3.	Drought	Oct-1982	700,000	8.	Flood	Feb-2003	18,000
4.	Epidemic	May-1996	500,000	9.	Epidemic	Nov-1992	5,649

¹⁰ Source: "EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium

5.	Flood	Jan-2000	266,000	10.	Epidemic	Jan-2000	1,675
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Table 10:

Summarized Table of Natural Disasters in Zimbabwe from 1975 to 2005						
Type	# of Events	Killed	Injured	Homeless	Affected	Total Affected
Drought	4	0	0	0	11,755,000	11,755,000
<i>Avg. per event</i>		0	0	0	2,938,750	2,938,750
Epidemic	13	1,874	0	0	511,350	511,350
<i>Avg. per event</i>		144	0	0	39,335	39,335
Flood	4	121	0	66,000	248,000	314,000
<i>Avg. per event</i>		30	0	16,500	62,000	78,500
Wind Storm	2	19	0	0	0	0
<i>Avg. per event</i>		10	0	0	0	0

- 5.3. Greater Vulnerability to Disasters:** Data indicates that there is an increase in quick onset natural disasters in Zimbabwe, the main ones being the increasing prevalence of disease (HIV/Aids in the first place but Cholera now becoming an annual occurrence) and flooding, which, however, is not so much due to ‘global warming’, although changing meteorological factors do play a part, as due to exacerbation by man – the increasing silting up of rivers caused by soil erosion from poor farming practices and deforestation, the pressure on people to live in marginal areas, especially the Zambezi River valley, and less regulation, although there are many sophisticated early warning systems in place, especially on the rivers. In many respects, however, they are too high-tech and do not translate into effective warning measures for the vulnerable communities, as well as the fact that the means of communicating these warnings are extremely limited.
- 5.4. Drought:** Drought has become a more serious issue in Zimbabwe in recent years due to the fact that there are no longer the large scale farm irrigations schemes that were used in previous times when rainfall was erratic. Now that these are no longer invested in, due to the way in which many of the farms have been broken up. Nevertheless, the issue of drought is so linked to other factors, poverty, the HIV/Aids pandemic, the crumbling support structures, that it is difficult to isolate it as a sector that can be addressed on its own with disaster preparedness strategies.
- 5.5. Floods:** Floods are an annual event in areas of the Zambezi valley and the Save river valley, but whilst they are yet another exacerbating factor to a humanitarian situation that is already grievous, in themselves they may not be generally so bad that they would warrant a disaster preparedness intervention strategy. Much of the flooding is also aggravated by human factors and a lack of regulation, which could be solved some sensible governance. This is not to say that a disaster

preparedness strategy is not needed in Zimbabwe, it is, badly, but it should not be aimed specifically at floods.

5.6. A natural disaster that appears to be increasing in frequency for no accountable reason is earthquakes – last year three affected Zimbabwe, although all of them occurred in Mozambique, close to the border with Zimbabwe. The largest was a massive 8.5 on the Richter scale, and was relatively close to the surface but it occurred in an area of low population and therefore had little impact. Only six people were killed. Were it to occur in an area with a higher density of population the consequences could be disastrous. Of much higher impact in terms of natural disasters are flooding, drought and outbreaks of disease, with, currently, a potentially large threat from cholera.

5.7. Disease:

Cholera¹¹: Cholera is rapidly becoming a serious public health concern in Zimbabwe with prevalence on the rise; from 1972 to 1992, outbreaks occurred every 10 years; from 1993 every 5 years, and then annually after the millennium. In the past, an outbreak threat was associated with the onset of the rainy season or was seen as coming from beyond national borders. Today, however, cholera outbreaks are occurring throughout the country and not necessarily only during the rainy season. With the onset of the rainy season at the end of 2005, an outbreak of cholera was reported to have spread to all 10 provinces in the country, having started on the 28th of November 2005 but only reported on the 13th of December. By mid-May 2006, a total of 980 cases were reported (with 73 deaths) countrywide, translating into a high case fatality rate of 6.4%. Although the government has established curative and control interventions in the affected areas, the MoH&CW is facing challenges due to lack of transport for monitoring as well as shortage of drugs and human resources.

HIV/Aids: This is not an appropriate report in which to discuss the enormous problem of HIV/Aids, but it is one of the single most important issues that have an impact on so much of the rest of the humanitarian situation, and one of the reasons why there is a need for disaster preparedness interventions. One very simple issue, for example, is that many of the people struck down by HIV/Aids are people like the rural medical staff, and without these essential people the health structures in these areas decline even further, meaning that if there is an outbreak of disease such as cholera, or a surge in malaria, there is little support for the local population.

Capacities and Agencies (for details of DG ECHO funded programmes that relate specifically to disaster preparedness see Annex A):

¹¹ Information provided by Regina Gapa, ECHO programme assistant.

5.8. Civil Protection Unit (CPU):¹² The Civil Protection Act No. 5 of 1989 established the Civil Protection Unit (CPU), the organ responsible for co-ordinating disaster management in the country. The Act provides for the establishment of a National Civil Protection Fund which receives money from both Government and the public. The fund is reported to be applied to the development and promotion of Civil Protection activities throughout the country. The Civil Protection Unit (CPU) is the national platform for disaster management. It is the executive body of the Ministry of Local Government and National Housing, and the National Civil Protection Coordinating Committee (NCPCC) mandated to carry out the overall co-ordination of all relevant disaster management stakeholders in Zimbabwe. The NCPCC is then sub-grouped into working sub-committees with special functions: food supplies and food security, health, nutrition and welfare, search and rescue, and security, international cooperation and assistance, and industrial hazards. This diversification is important in order to ensure that the NCPCC uses a balanced multi-sectoral approach. Through this department the country has, in the past conducted, a multi sectoral hazard and vulnerability mapping exercise throughout the country. These exercises have created the foundation for the development of sectoral emergency preparedness and response plans which are currently being implemented by the respective sectors and government departments. Again, the findings of the hazard analysis exercises guide the stakeholders in their endeavours in developing Emergency Preparedness and Response (EPR) programmes, which include among others public awareness campaigns and community based early warning outreach programmes.

There is, however, no national disaster preparedness plan, although the CPU says that one is being prepared. Without a skeleton on which to hang a strategy it becomes difficult to see how the CPU can be effective, and although they, themselves are confident, their presence is certainly not felt at the level of the affected populations.

The CPU works together with the Meteorological Services Department which closely monitors the weather and is mandated to regularly give updates and warning information through the laid down channels of communication. The general public is then informed of any threatening events through the pre-set channels of communication.

All of this sounds impressive, and certainly the CPU has great confidence in itself. This, however, was not reflected by other agencies involved in disaster preparedness who considered that in practice, although the CPU tried hard, they lacked the capacity to be effective and were too centralised (in Harare) to be useful as a co-ordination mechanism in the event of a disaster. They lacked the finance, structure, equipment and personnel. This much was admitted by the CPU. Much of the contribution for co-ordination of the CPU could be attributed to input from the UN and in particular from the OCHA

¹² Information provided by Regina Gapa, ECHO programme assistant.

- 5.9. ZINWA:** The technical advisor on hydrology in the CPU is a staff member of ZINWA. ZINWA admits that there is need to improve their existing capacity to provide forecasts that stakeholders will have more faith in. The forecasts need to be made simple so that the ordinary man understands the likely impact. ZINWA also sees the need to be proactive, once a warning has been issued so as to minimise the impact of floods. Two problems have been noted by ZINWA in flood management. The first one is the lead-time between the flood forecast and the flood event. At the moment the models being used for meteorological forecasts can only provide very short forecasts accurately. This may not allow enough time to reduce the impact. The second one is accuracy of the forecasts. Due to previous false alarms from the Meteorological Office, people were no longer taking forecasts seriously as demonstrated during the 'Eline' cyclone. At that time people only took the forecasts seriously when floods had already started causing havoc to the locals. An accurate forecast was issued by the meteorological office but was not taken seriously until reports of people dying as a result of floods in Mzarabani were received. Communication needs to be improved so that the potential victims can be reached. In the meantime, awareness creation on the impact of floods and how people should respond to such events at local level needs serious attention.
- 5.10. Zimbabwe Red Cross, OCHA, and IFRC** are all actively engaged in DRR and more specifically in disaster preparedness, but they all feel that much more needs to be done for the reasons mentioned in 3.1. All agreed that the most effective disaster preparedness should be done at community level with awareness and training programmes. At community level, however, it would be unlikely that the community themselves would express this because in many of the disaster prone areas the people were suffering from other effects of humanitarian distress, and they would more likely be interested to know where their next plate of food was coming from rather than seeing money invested in disaster preparedness. Thus awareness and a subtle approach were necessary.
- 5.11. UN & NGOs:** Although the UN and NGOs consider that they have disaster preparedness in mind, they are too overwhelmed with other difficulties such as trying to address HIV/Aids in Zimbabwe, to make disaster preparedness a first priority. A problem with access also makes disaster preparedness difficult to implement. In this respect, the Zimbabwe Red Cross have wider opportunities, but it is difficult to know what influence there may be on their access.
- 5.12. IFRC (Southern Africa Regional Office, Harare):** IRFC is presently active with emergency activities especially in response to impacts of flooding and Cyclone Favio in Mozambique, through its operational centres at Maputo, Caia and Beira. At the Emergency Task Force meeting IFRC acknowledged the recent DG ECHO support of Euro 1m, in addition to the earlier Euro 500,000, towards its emergency response in Mozambique. Elsewhere in the region, despite the heavy rains, the situation was not critical except for the Caprivi Strip in Namibia and Kazungula in Zambia, where about 25,000 people were threatened with imminent flooding. Apparently, malaria attacks in the places isolated by flooding water were reported to be on the rise.

- 5.13. IFRC and Pre-positioning:** IFRC were keen to promote the idea of investing in pre-positioning of stock as a disaster preparedness measure. The evaluation team questioned the efficacy of pre-positioning of stock. Given the difficulties involved in moving stock around a region that is notorious for difficulties in crossing borders (a recent example occurred a few months ago when the Red Cross tried to move materiel from Harare to Swaziland to assist in some floods and the stocks were held up for 3 days at the border) it was questionable whether pre-positioning was more effective than moving the stock directly from Europe or from Nairobi. Nevertheless the Red Cross have some interesting new initiatives for disaster preparedness which will be worth considering, especially in terms of training response teams.
- 5.14. WHO:** The DG ECHO funded cholera programme implemented by WHO, is in effect, a DIPECHO-type programme, in that it is a pro-active project rather than a reactive one. Judging by the description given by WHO it is an ideal disaster preparedness programme. Very simply what WHO does is procure and hold medical stock to be deployed in the case of outbreaks of cholera. Because WHO controls the stock entirely themselves it is not siphoned off by the government or private medical practices, and it can be deployed to an affected area within a maximum of 48 hours. In a country where the medical services are rapidly declining this is an effective disaster preparedness programme.

Annex B to:

DIPECHO Ex-ante Evaluation Report:

Dated 9th March 2007:

**SOME EXAMPLES OF GOOD DIPECHO-TYPE STRATEGIES
WITHIN STANDARD ECHO-FUNDED PROJECTS IN AFRICA:**

1. **General:** Many DG ECHO projects in this region could almost be described under the definition of DIPECHO. For example, because UNICEF were unable to respond to the first eruption of Karthala in the Comoros in 2005, in covering the water cisterns, the project, accidentally, became a proactive measure, so that when Karthala erupted again last year, the population whose cisterns were covered were protected, and those that weren't suffered. The simple measure of covering the cisterns could really be described as a proactive DIPECHO-type strategy. A second example would be some of the community-based nutritional programmes in Malawi, which were implemented by Concern and CARE, which were, in some respects less of a reactive measure to the immediate problem, but were, with their emphasis on developing community-based early warning systems, more of a proactive measure.

12. **Comoros:**

2. **UNICEF project for covering cisterns:** The interesting aspect about these projects, now, is that although they were not, initially considered to be a very successful project from an emergency response point of view, although that all-important commodity, potable water, was provided in a timely way, seen from a DIPECHO point of view they are highly successful. When Karthala erupted in 2006, it was extremely noticeable that the water cisterns that were covered by the DG ECHO project were protected, whereas those in the same areas that were unprotected were contaminated. A second point that could be considered successful from a DIPECHO perspective was that these projects were community

based and were implemented by the community (although the materials were supplied by UNICEF), which then led to a third aspect of the success which was that the communities came to realise how successful this approach was for protecting their extremely valuable and fragile water resources, and so, unprovoked spontaneously started to cover their own cisterns, which has had a fourth indirect benefit a, possibly (because there still needs to be an official assessment), 25% reduction in malaria and other water-borne diseases. All of this has led to another important aspect, which is that these projects may have acted as pilot projects for longer-term development donors – to the extent that the Delegation is looking at the possibility of continuing with the project on a grander scale.

13. Malawi:

- 3. CARE and Concern:** Development of early warning nutrition indicators in Concern and CARE community-based feeding programmes.

14. Mozambique:

- 4. GTZ supported Disaster Risk Management project (PRO-GRC) – *not funded by DG ECHO but based on projects funded by DG ECHO in Central America:*** GTZ, following the floods of 2001, and using lessons learned from their DG ECHO funded projects in Central America, have managed to implement a project, which is exactly the sort of thing that exemplifies well the sort of community-based, low tech, inexpensive, disaster preparedness strategy that a DIPECHO intervention should aim at. Something that a DIPECHO intervention strategy will need to examine, in the context of floods, is whether they look at preparedness on an annual basis or look at it in a cyclical way; in other words preparing for something much worse that may happen every ten years. Different approaches are required. This initiative was designed to mitigate the effects of Buzi river floods through people-oriented inter-district operation flood warning management system. There has been exchange of visits and information exchange with Central America where a similar project was implemented. From 2003 to 2005), the project conducted two disaster emergency simulation exercises - one done at CENOE and the other at Caia. A new project is being planned to focus on three issues: replicate the Buzi model to other parts of the adjacent basins, like Zambezi or Save; reduction of vulnerability for drought; support CENOE on disaster management policy aspects. Replicating the lessons learnt on the Buzi model may provide an opportunity of possible intervention.

15. Zimbabwe:

- 5. OCHA - Disaster Preparedness:** From 2005 to 2006, DG ECHO funded OCHA for a total amount of EUR 428,000 (ECHO/ZWE/BUD/2006/01009), part of which was dedicated to a disaster preparedness component. A new proposal for

EUR 440,000 is under discussion. Activities implemented (and to be implemented) by OCHA include:

- Facilitation of the development of an inter-agency contingency plan
- Mainstreaming disaster risk reduction and preparedness into joint strategy documents including Consolidated Appeals
- Provision of technical support to the CPU in hazard mapping for disaster preparedness planning
- Development of preparedness plans for pilot districts together with NGOs and CPU
- Facilitation of training for Provincial and District Civil Protection Committees and NGOs on disaster preparedness planning
- Support to the CPU for the development materials for awareness raising on dangers of floods, epidemics and other hazards
- Working with the CPU, NGOs and UN agencies to develop Community Emergency Preparedness structures and strengthen community early warning systems

6. **WHO - Cholera Preparedness:** Due to the protraction and spread of the outbreak and the outcry for more resources, WHO, through DG ECHO funding has put in place urgent specific preparedness interventions in order to be able to adequately and effectively respond to the cholera epidemic should the need arise. DG ECHO has funded WHO a total of EUR 841,000 for 2 contracts (ECHO/ZWE/210/2003/01016 and ECHO/ZWE/BUD/2006/01010). The following being the activities that were and are being implemented by the partner:

- Procurement of drugs, medical supplies, sanitation and hygiene materials, Protective clothing for health workers, camping equipment and laboratory reagents
- Transportation, distribution and monitoring of items in the event of an outbreak
- Training of health workers in case management
- Conducting health and hygiene education campaigns and community capacity development
- Reprinting and revision and production of operational guidelines
- Establishment of quarantine camps in the event of an outbreak

- Strengthening the operation of reaction teams from WHO
- Conducting disease surveillance activities prior to and during outbreak
- Providing water treatment tablets for domestic water supply treatment

16. Regional:

6. **UNICEF** have developed an IT EWS that makes use of information fed into a data base by each country office grading the humanitarian situation and the potential for humanitarian disasters whether they are the result of natural disaster, conflict, disease, drought, and so on. This admirable system was illustrated to the evaluation team in Brussels, and it is certainly impressive. The concern of the evaluation team is that although it was used well by UNICEF and although other UN agencies could receive this information, it was mainly a UNICEF centred scheme and although it enabled them to respond appropriately
7. **IFRC** have very often been the partner of choice for much of ECHO's initial emergency response funds, particularly for 'Premier Urgence' as they are far the most advanced at distributing relief and organising search and rescue, particularly with the enhancement of their emergency response units (ERU). Their Disaster Management programme also includes Disaster Preparedness and the DG ECHO Thematic Funding includes development of training materials for Regional Disaster Response Teams and guidelines on community capacity assessments etc. They claim to have had good success with pre-positioning stocks in SE Asia and Central America where, they would claim that the cost and time savings in an emergency response have been huge. However, see arguments under point 3.16 of the main report. Their claims to efficiency in traditional pre-positioning systems is only valid if there is regional cooperation this pre-positioning does not work.

17. Other Examples of Disaster Preparedness Projects in the Region:

8. **Madagascar: FIVOY Community micro-credit bank** (*however, because of the cash aspects unsuitable for DIPECHO*)

Micro-credit FIVOY Community bank is predominant in the drought stricken southern province of Toliara in Madagascar. In Malagasy language, FIVOY is "Fitehirizana Vola Ifampisam" which literary means "Save Money through Loans." At Bahera village in Amboasary district, the bank was been in existence since December 2005 and over the years membership has grown to 387 memberships and includes almost all farmers in the area. Membership fee is about 2,000 AR with the loan-scheme participation fee of 10,000 AR. The bank leases out locally made agricultural tools (some of which are from Anjamahavelo), such as plows, harrowers and weeders. For instance, a small weeder is leased out at 20,000 AR payable for in 3 years at 3% per annum interest with a start-up down payment of 20%.

Related to disaster preparedness could be the scheme of securing loans by depositing food stocks by the farmers at the bank's warehouse. A farmer can, for example, deposit a 50kg bag of beans at the lowest selling market price of 800 AR/kg and be given a loan of 40,000 AR. Charged 3% monthly interest. i.e. 1,200 AR per month, the total payable amount 5 months would then be 46,000 AR. In drought period, the cost of the foods drastically increases. The farmer would wish to find a buyer and re-sell at 1,800 AR per kg, generating 90,000 AR for same deposited 50 kg bag, pays off the loan of 46,000 AR and make a good profit of 44,000 AR in the end. The buyer would sell his product at an astronomically high price of 2,400 AR given the shortage and high demand. The bank is also flexible to allow the member to re-buy a portion of the loaned stock, say by half, i.e. 23,000 AR worth and be use by farmer. Even though the market price would be high at that time, the farmer can still re-buy his/her stock at the older price with the mere 3% interest. Such a scheme provides for not only additional income but a steady availability of food stocks in the community in harder times.

9. **Madagascar: FAO seed projects:** FAO is attempting to alleviate the effects of future drought in the South of Madagascar through pre-emptive seed distribution of drought resistant varieties. Following aggressive capitalist policies that took advantage of previous droughts the population became dependant or favoured unsuitable crops – mainly maize, which does not generally thrive in the arid conditions of the South, although FAO in its strategy is being pragmatic and attempting to gradually wean the population of the south off maize. In doing so they are continuing to distribute some maize seeds but these are a short-fruited variety. FAO would argue that this is a disaster preparedness-type project, and certainly if the population is able to grow crops that can withstand drought then the nutritional effects of drought may be alleviated, but from a DIPECHO point of view this should probably be seen as a longer-term agricultural and cultural policy that is best addressed by the other instruments of the Commission through the Delegations.
10. **Regional Project: Sustainable strategies for flood mitigation: Source Book for Sustainable Flood Mitigation Strategies**

Background: The Source Book for Sustainable Flood Mitigation Strategies has been produced with funding from the Department for International Development (DFID) of the UK Government under the Knowledge and Research (KAR) Programme. The work was been carried out as a collaborative venture between HR Wallingford (UK), Eduardo Mondlane University (Mozambique), Instituto Nacional Da Gestao De Calamidades (INGC) (Mozambique), Ministério Para A Coordenação Da Acção Ambiental (MICOA) (Mozambique) and the Department of Water Affairs and Forestry (South Africa).

Main Issues

Raising Flood Awareness and Methods

This aspect entails assisting communities mitigate against flooding by raising their awareness of flood preparedness in terms of: flood hazard; potential consequences of flooding; and vulnerability of the threatened community to flooding.

a) Dissemination of Flood Risk Information

People need to be aware of the flood risk in the area in which they live. The dissemination of flood risk information, including flood maps, where available, involves providing information to people in flood risk areas and explaining what the information means. This is generally carried out by local authorities and NGOs through public meetings where available the posters and booklets are explained and then left as a permanent reminder of flood information. Educational activities in schools, theatre and drama compliment the efforts.

b) Preparation of Flood and hazard Maps

Communities living in regular flood prone areas are usually aware of the flood occurrences. Flood maps therefore help show where flooding is likely to occur and areas that are unlikely to flood. In its preparation, the community is assisted to develop an appropriate map related to known features, such as certain buildings, and include important locations in time of flood, particularly water points, storage locations, latrines and the location of radios and other communications. Red Cross has helped establish community based flood maps at Matasse in Mozambique.

c) Use of historical flood marks to maintain awareness

Flood marks are an important way of maintaining local knowledge of the extent of past flooding. In particular, they provide an immediate visual reference of flood impact. If maintained over a long term, they will give information that may be lost to other sources, or forgotten by local residents.



Example¹³ of placing a flood mark on a rural building

Flood Warning

¹³ Source: Ministerio para a coordenação da acção ambiental, Republica de Moçambique, UN Habitats Cities Alliance programme (2004) Aprender a viver com as cheis, Manual de recomendações para a redução da vulnerabilidade em zonas de ocupação informal susceptíveis a inundações.

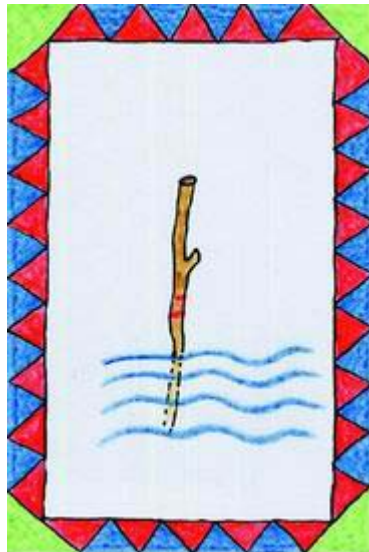
Flood warnings are distinct from forecasts, as they are issued when an event is occurring, or is imminent. Flood warnings need to be understood quickly and clearly through local systems

a) Community Based Flood Forecasting and Warning Systems

At national level flood warnings originate from a single source that has the knowledge to produce the warning, for example the river basin management agency. At the community level people, develop and implement a basic local procedure that may include: having a system to obtain information about the rise of river water and flooding from communities upstream and a way to pass the information to the next community downstream; having a system for listening to the radio and passing flood information to every family.

b) Community based data collection

Community-based participation in data collection for flood forecasting helps develop confidence and a sense of ownership amongst the people. Appointed individuals may perform the various roles of: caretakers of installations; trained gauge readers for manual instruments (rain gauges, water level recorders); and radio operators to report real-time observations. Information gathered relates to knowledge of: the depth of past severe floods in the local area; the causes of flooding in the local area; how quickly the waters might rise; how long the floodwaters might remain in the locality; the direction of movement of the floodwaters. Community participation also helps to prevent vandalism and damage to installations going unreported. To maintain this support, local appointees will need to be remunerated with a token of salary or a small retainer.



Monitoring river levels

in rural area¹⁴

Flood Preparedness Measures

Whilst river embankments are very important for flood protection, these may not be suitable for every area because unplanned embankments can themselves cause flooding due to blockages in the drainage system. Other measures are itemized below.

a) Use of safe havens

A safe haven is an area that is constructed so that it will not flood, where people can congregate in times of flood. This may consist of a raised area of earth or a structure made using local materials, for example tree trunks. The structure needs to be strong enough to resist the flow of imminent floodwater where it is constructed. Other types of safe haven include: platforms built inside individual houses; flat roofs of large buildings, for example shops or offices. A safe haven normally provides a temporary or permanent refuge for people during floods, and minimizes the need for evacuation.

b) Modified houses to provide safe havens

Houses can be modified to provide better facilities during floods, and avoid the need for evacuation through: constructing platforms inside the houses above flood level, to provide shelter and sleeping areas during a flood; providing false ceilings for storage of seed and other essentials; and making houses strong enough so that families can live on roofs during floods; and restructuring houses to collect rainwater that falls on roofs and shelters, thus providing a possible source of clean water during floods.

¹⁴ Source: Ministerio para a coordenação da acção ambiental, Republica de Moçambique, UN Habitats Cities Alliance programme (2004) Aprender a viver com as cheias, Manual de recomendações para a redução da vulnerabilidade em zonas de ocupação informal susceptíveis a inundações.



Modifications to rural homes to provide safe havens¹⁵

c) Flood resilient Houses and Building

Resilience to flood of the existing buildings could be improved by strengthening the structure of the house, using materials that are not damaged by floodwater, in particular, avoid the use of mud walls, or protecting the house by external means. Other measures could include: Raising the thresholds at entrances to concrete and brick houses to reduce the chances of floodwater entering the house; strengthening the corner posts and roofs and using wires and other materials to strengthen houses and tie joints; raising floors inside houses; and construct earth embankments around houses for low depths of flooding.

d) Establish trigger levels for action

A trigger level refers to the river level or amount of rainfall that ‘triggers’ certain actions or provision of information to external users. It is used to decide when to undertake certain actions during a flood event and its basis needs to give enough time to undertake the response action. For instance, if a river water level reaches a certain ‘trigger level’ it might mean that a village will flood in a few hours and the response action could be to evacuate the village.

10. Project for Sustainable land use planning for integrated land and water management for disaster preparedness and vulnerability reduction in the Limpopo River Basin:

¹⁵ Source: Ministerio para a coordenação da acção ambiental, Republica de Moçambique, UN Habitats Cities Alliance programme (2004) Aprender a viver com as cheias, Manual de recomendações para a redução da vulnerabilidade em zonas de ocupação informal susceptíveis a inundações.

Background: Objective is to develop and implement participatory land use tools and plans for sustainable land management in the Limpopo River Basin in order to reduce the impact of floods on land, ecosystems and human settlements in countries of Zimbabwe, South Africa, Mozambique, & Botswana, supported by UN Habitat; UNEP; and GEF.

Critical Related Issues

- Irregular hydrological regime results in endemic droughts and sudden floods - the trend is exacerbated by an increased incidence of extreme climatic events
- Early warning systems need to be improved to produce a more effective response at the local level
- Vulnerable communities are still not sufficiently participating in planning and decision-making

Relevant Outcome Components

a) Build institutional and community capacity for participatory land use planning

Technical staff meet with the community and the local authorities in order to discuss existing problems in the area, identify possible solutions, develop an action plan and, consequently, prepare for the implementation of priority interventions.

Stages involved in Participatory Planning¹⁶

Stage 1. Charactering the Area

Technical staff present the available maps, aerial photographs and/or satellite images of the study area. These materials can be easily understood by the community; for example, in the aerial photograph it is possible to locate the single houses, the trees, etc., as shown in the next page. Through an interactive process with the technical staff, the community helps determining the geographic location of the main features of the area such as: roads, market, river, crops, school, health centre, etc.

Stage 2. Mapping Existing Situation

Based on the information provided by the community, the technical staff maps the existing land use (residential area, agriculture, pasture, etc.) onto a satellite image or an aerial photograph. Similarly the location of the main infrastructure and basic services is mapped (water points, school, health centre, market, administrative buildings, etc.).

Stage 3. Defining the main Problem

¹⁶ Adapted from presentation of Mathias Spaliviero, Project Manager, UN-HABITAT, at the UNESCO-IHE Alumni Regional Refresher Seminar on Flood Management for SADC, 10-15 December 2006, Eduardo Mondlane University, Maputo, Mozambique

The community is requested to talk about its local development problems, for example: poor access to safe drinking water, poor sanitation facilities, lack of social services (school, health centre, etc.), ineffective solid waste management, erosion, inefficient irrigation system, bad roads, pollution, negative impact of floods, droughts or cyclones, etc. The main problems are listed; if possible, these are also located on the map drafted during the previous stage. Thereafter, all problems are discussed openly among the community, the local authorities and the technical staff. As result of the discussion, the problems are ordered according to the priorities of the community.

Stage 4. Identifying possible solutions

The community, assisted by the local authorities and the technical staff, proposes solutions to the identified priority problems. These solutions are discussed in relation to their feasibility and with respect to the available resources. In this way the interventions to be implemented are defined. All contributions are taken into consideration, since they will enrich the action plan to be elaborated in the next stage. It is important to define what the community's contribution will be as this will inform the development of a good implementation strategy.

Stage 5. Developing an Action Plan

After the interactive process with the community and the local authorities, the technical staff drafts an action plan proposal where all collected information is properly organised, and which includes an implementation strategy for the priority interventions. During a second meeting, the technical staff presents the proposal to the community and the local authorities for their joint assessment, revision and approval.

Stage 6. Implementing Priority Interventions

During this second meeting, the respective implementation responsibilities of each stakeholder are determined, and training and capacity building needs at the local level are assessed. All required technical drawings and detailed proposals for executing the selected interventions are prepared. Essential partnerships are established at all levels. The sub-contractor responsible for carrying out the works should be encouraged to actively involve the community in all decision-making processes. It is important that the community takes ownership of the project so that the future well-being of the interventions is strengthened.

(b) Improve disaster preparedness, contingency planning and awareness

- Select project sites for the implementation of land use planning tools at community level.
- Propose and adopt consensus-based contingency action plans and facilitate their implementation through existing community organizations.
- Selection and training of local administration staff and elected community leaders to promote awareness and ensure efficient public participation in adopting flood preparedness techniques and land use planning.

- Organization of annual workshops and training sessions both nationally and locally aimed at reinforcing decision-making capabilities to produce emergency flood responses.
- Identify flood-safe areas through participatory land use planning in both urban and rural environments.

11. RANET Project – Mozambique:

The Meteorological Depart (INAM) of Mozambique is currently implementing RANET (Radio and Internet) project for the local communities. Relevant meteorological data is downloaded from satellites in community-based radio stations where it is interpreted and broadcast in local languages through special frequency-tuned radios. INAM will also transmit other relevant data like water levels soon. For Cyclone early warning, a new system is use which categorizes the severity of the cyclone from 1 to 5. Colour codes are used to describe lead-time range. INAM has supplied INGC with flags of various colours, for instance a blue flag marked with the figure 1 is interpreted to be mild with 24-48 hrs of lead time to strike. Appropriate emergency response would be guided by the category description. INAM will soon second a permanent staff CENOE to help with forecasts operations. However, RANET is the one-way based information dissemination system with no feedback mechanism. INAM is also exploring an automatic system of transmitting essential information to cell phones by SMSs, especially during emergency alert periods.

DIPECHO Ex-ante Evaluation Field Work Itinerary 23 Jan - 26 Feb 2007

Place	Date	ORGANISATION	CONTACT PERSON (s)
Brussels	Wed 24/01	ECHO	Evaluation Team & Bilateral Meetings with desks
	Thur 25/07	DG-Development DG ECHO	Giorgio Cocchi Individual meetings with: Patricia Cavanagh, Beatrice Miege, Dr. Phillipe Maughan, Paulina Rozycka Other desks in DG ECHO 01 & DIPECHO
		DG-Dev	Laura Schmidt
	Fri 26/07	DG-Dev ECHO, wrap up brief	Aloysius Lorkeers DIPECHO, Operational Desks, DG ECHO 04
Geneva & Zambia - Zimbabwe	Sun 28 – Mon 29	Travel to Harare	
Harare	Mon, 29/01	Meetings in Delegation	François Goemans, Regina Gapa, HoD, Xavier Marchal
	Tue, 30/01	Zimbabwe Red Cross Society (ZRS)	Desmond Mudombi
		Ministry of Local Government,	Shelton Chisedzi

Place	Date	ORGANISATION	CONTACT PERSON (s)
		Public works & Urban Development	
		Civil Protection Unit (CPU)	Sibusisiwe Ndlovu Lameck Betera
		International Federation for Red Cross (IRFC)	Samuel Asamoah Farrid Aiywar
		Office for the Coordination of Humanitarian Affairs (UN-OCHA)	Agnes Asekenye-Oonyu
		World health Organisation (WHO)	Shadreck Khupe
		Zimbabwe National Water Authority (ZINWA)	Elisha Madamombe
Zimbabwe-Malawi	Wed, 31/01	Travel to Lilongwe	
Lilongwe	Wed, 31/02	EC Delegation	Dominique Blariaux, HoD: Alessandro Mariani
		World Bank Evaluation Team	Len Abrams Darryl Kilian
		Department of Water Development (DWD)	P. Kaluwa Amon Chirwa
		Malawi Red Cross	Jane Jere
		Care International	Francis Nkoka
	Thur, 01/02	UNICEF	Juan Ortiz-Iruri Chisomo Gunda Ruben Bayiha
		World Vision	Marion Chindongo
Lilongwe-Blantyre	Fri 01/02	Poverty and Disaster Management Affairs (PDMA)	James Chiusiwa
		Travel to Blantyre, M.M. Remain for meetings in Lilongwe, P.H.	
Blantyre & Chikwawa		World Bank	Darryl Kilian
		Concern	Shahnewaz Khan
		World Vision	James Chiusiwa Marion Chindongo
		SCF/US	Mohamed Idris
		CARE	Cecily Bryant, Country Director & Josephine Marealle Ulimwengu, Deputy Director
		Water for People, Blantyre	Kate Harawa
		Oxfam, Blantyre	Yohane Kangwira
		2 nd Meeting with World Bank	
	Sat, 03/02	Field Visit to Chikwawa	Lende(District Commissioner) Audrick Machewo (World Vision) Ephrone Mwenitete (Water for people) Fombe (Group Village Headman) Patilawo (Village Headman) Ntombosola (Village Headman) Dyton Robert (Village Headman)
Blantyre-Lilongwe	Sun, 04/02	Travel to Lilongwe	--
Lilongwe	Mon, 05/02	UNDP/WFP	Susanne Thorsbøll Dom Scalpelli
Malawi-Mozambique	Mon, 05/02	Travel to Maputo	--

Place	Date	ORGANISATION	CONTACT PERSON (s)
ue			
Maputo – Chokwe Maputo	Tue, 06/02	EU Delegation	Noel Cooke Albert Losseau
		National Directorate of Water (DNA)	Suzana Saranga Loforte Pedro Cambula
		NGO Consortium Meeting	NGOs at World Vision
		National Institute for Disaster Management (INGC)	Fatima Belchior Olgar Morar
		Mozambique Red Cross and German Red Cross Representative	Mozambique Red Cross German Red Cross
	Travel to Chokwe (PH)		
	Wed	Ministry for Coordination of Environmental Affairs (MICOA)	Manuela Muianaga
Chokwe	Wed 07/02	Field Mission	German Red Cross, Mozambique Red Cross, local villages, villagers, headmen, DC.
Chokwe – Maputo (PH)	Thur, 08/02	Return to Maputo (PH)	
Maputo- Beira (MM)		Travel to Beira (MM)	--
Beira, (MM)	Thur, 08/02	Médicos Com Africa (CUAMM)	Chad Lipton
	Fri 09/02	National Directorate of Water for ARA-Centro	Manuel Fobra
Maputo (PH)	Fri 09/02	EU Delegation	Noel Cooke, Eric von Pistohlkors
		Meeting UNDP – Cluster Meeting Meeting INGC – Emergency Operation GTZ	UN, NGOs, Gov agencies Horst Hertel Wolfgang Stiebens Sune Gudnitz
		OCHA (Geneva)	
Beira- Quelimane	Fri 09/02	Travel to Quelimane (MM)	--
Quelimane	Fri, 09/02	World Vision	Jose Daniel
		National Institute for Disaster Management- Zambeze	Joao Zamissa Honorio Vaz
	Sat, 10/02	INGC and CARE to Chimuará Flood Prone district	Honorio Vaz Jose Daniel
	Sun 11/02	Emergency Response Preparedness Committee of Namacurra	Sotario Paulo George Abilio
	Sun 11/02	Mozambique Red Cross at Quelimane	Nilza Fransisco
Quelimane- Maputo	Sun, 11/02	Travel to Maputo	--
Maputo	Mon, 12/02	UN Cluster Meeting EU Delegation	UN agencies & NGOs. Albert Losseau Noel Cooke Sylvie Millot Eric von Pistohlkors Domingos Mosquito Elias Vasco
		INAM	
	Tue, 13/02	WFP GTZ/PRO-GRC Buzi River Basin Project	Peter Keller Transburg Wolfgang Stiebens

Place	Date	ORGANISATION	CONTACT PERSON (s)
		GTZ	Wolfgang Stiebens
		INGC-CENOE	Alda Massinga
Mozambique – Madagascar	Wed, 14/02	Travel to Antananarivo	--
Antananarivo	Thur, 15/02	EC Delegation	HoD Jean-Claude Boidin Bernard Rey Jacqueline Uwamwiza
		CARE Madagascar	Nicolas Webber Didier Young
Antananarivo	Fri, 16/02	FAO UNICEF	Martin Smith
Antananarivo – Fort Dauphin	Fri, 16/02	Travel to Fort Dauphin	--
Amboasary	Fri, 16/02	CARE Fort Dauphin	Jean Phillipe Bengaly Kouyate Rakotoarisoa Sahondranivina
Andranovory	Sat, 17/02	Andranovory Village Anjarahavelo Village Care International	Denis Bartholdy Rakotoarisoa Sahondranivina
Ambovombe	Sun, 18/02	FIVOY Community Bank SAP SILSA GRET	FIVOY Bank Manager Raobijaona Jean Tovo Mamenovala Foiavo Antoine Deligne
Soamierane, Ifaranita, Mandiso	Mon, 19/02	CARE Fort Dauphin 1	Dasy Ibrahim Silvain Deffontaines
Antananarivo – Comoros	Mon, 19/02	Travel to Moroni	--
		Meeting with UNICEF	Bernadette Nyiratunga & Saandi Maoulida
		Meeting with COSEP	Colonel Ismael Mognedaho
Fort Dauphin - Antananarivo		Travel to Antananarivo	
Moroni, Comoros	Tue, 20/02	Meeting with UNDP, Resident Co-ordinator & Emergency Response Co-ordinator	Opia Mensah Kumah
		Field Visit	
		Meeting with French Red Cross and Croissant Rouge Comorien	Nicholas Brodeur, Said Abdou, Abdourahmane Bacari
Antananarivo		Tour of Antananarivo Floods	Herman Roberto
Madagascar-Kenya	Wed, 21/02	Travel to Nairobi	--
Nairobi	Thur, 22/02	DG ECHO Debriefing & bilateral meetings	Field & Technical staff: John Hayward, Johan Heffinck, Nancy Balfour, Benoit Collin, François Goemans, Medical Co-ordinator
	Fri 23/02	Bilateral meetings with DG ECHO RSO and 04	Johan Heffinck, Nancy Balfour, John Hayward

Place	Date	ORGANISATION	CONTACT PERSON (s)
		Meeting with UNICEF regional emergency response co-ordinator	Bob McCarthy
Kenya-Zimbabwe	Fri, 23/02	Travel to Harare IFRC	-- Dolphina Tuster
Harare	Fri, 23/02	IFRC Emergency Task Force Meeting	Robert Kwesiga Pauline Ngoshani Gift Chatora
Muzarabani	Sat, 24/02	Zimbabwe Red Cross	Desmond Mudombi Eunice Khosa Towanda King
Kenya – Brussels		Peter Holdsworth travel to Brussels	
Harare	Sun	Filed report Synthesis	Desmond Mudombi
	Mon	Wrap up meeting	IFRC
Zambia	Mon	Travel to Lusaka	End of field mission

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Annex C to:

DIPECHO Ex-ante Evaluation Report:

Dated 31st March 2007:

People Met on the Evaluation Mission

Place	Name	Designation	
Belgium Brussels	Giorgio Cocchi	Deputy Head of Unit.	European Commission Directorate- General for Development
	Aloysius Lorkeers	International Desk Officer.	European Commission Directorate- General for Development
	Peter Cavendish	Head of Evaluation Sector, DG ECHO 01	DG ECHO
	Mr. Behrendt de	Head of Sector, Food	DG ECHO

Place	Name	Designation	
	Groot	Security, ECHO	
	Ms. Beatrice Mieke	DIPECHO Desk Officer	DG ECHO
	Ms. Laura Schmidt	Meteorological	DG Environment
	Ms. Paulina Rozycka	Desk, Zimbabwe, Comoros	ECHO1 Africa – Caribbean- Pacific
	Dr. Phillipe Maughan	Head of Sector, Southern Africa	ECHO1 Africa – Caribbean- Pacific
	Nicoletta Pergolizzi	Evaluation Manager	ECHO
	Patricia Cavanagh	Desk Officer	ECHO1 Africa – Caribbean- Pacific
	Line Urban	Food Aid and Disaster Preparedness	ECHO
	Arnaud Leclercq	Chargé de Projects	Sher Ingénieurs-Conseils s.a.
	Daniela Chiriac	Project Assistant	Transtec
Zimbabwe Harare	Mr. Xavier Marchal,	Head of EC-Delegation, Zimbabwe,	European Commission Delegation (EC-Delegation)
	Ms. Regina Gapa,	Programme Assistant for Zimbabwe, DG ECHO	EC-Delegation
	Mr. François Goemans	DG ECHO Representative, Southern Africa	EC-Delegation
	Desmond Mudombi	Disaster Development and Youth Programme Officer	Zimbabwe Red Cross Society (ZRCS)
	Towanda King	Provincial Field Officer	ZRCS
	Eunice Khosa	Logistics Officer	ZRCS
	Sibusiswe Ndlovu	Deputy Director	Civil Protection Unit (CPU)
	Lameck Betera	Principal Admin. Officer, Research & Information	CPU
	Samuel Asamoah	Regional Finance Development Delegate	International Federation of Red Cross and Red Crescent Societies (IFRC)
	Farid Abdulkadir Aiywar	Regional Disaster Management Co-ordinator	IFRC
	Pauline Ngoshani	Relief Co-ordinator, Zimbabwe	IFRC
	Gift Chatora	Regional Disaster Risk Management Co-ordinator	IFRC
	Robert K. Kwesiga	Regional Programmes Co-ordinator	IFRC
	Agness Asenkenye-Oonyu	Head of Office	UN Office for Co-ordination of Humanitarian Affairs (OCHA)

Place	Name	Designation	
	Mukhtar Farah	Deputy Head of Office	OCHA
	Elias Mabaso	Humanitarian Affairs Officer	OCHA
	Mette Tangen	Associate Humanitarian Affairs Officer, Africa 1 Section	UN - New York
	Enver Mapanda	G.I.S. Officer	OCHA
	Elisha Madamombe	Data and Research Manager	Zimbabwe National Water Authority (ZINWA)
	Gilbert Mawere	Deputy Director	Department of Water Development
	Mr. Shadreck Khupe	Health Co-ordinator	World Health Organisation (WHO)
	Mr. Alexander Chimbaru	Environmental Health Specialist	WHO
Malawi Lilongwe	Alessandro Mariani	Head of Delegation	EU Delegation
	Ms. Dominique Blariaux	Programme Manager, Food Security	EU Delegation
	Shahnewaz A. Khan	Asst. Country Director	Concern
	Cicely Bryant	Country Director	CARE - Malawi
	Josephine Marealle Ulimwengu,	Deputy Director	CARE - Malawi
	Francis Samson Nkoka	Technical Coordinator I-LIFE Project	CARE - Malawi
	Len Abrams	Snr. Water Resources Mgmt Specialist	The World Bank (WB) – Washington, USA
	Darryll Kilian	Principal Consultant (for WB in SADC)	SRK Consulting – Johannesburg, RSA
	P. Kaluwa	Chief Hydrologist	Department of Water Development
	Amon Chirwa	Deputy Director	Department of Water Development
	Juan Ortiz-Iruri	Deputy Representative	UNICEF
	Chisomo Gunda	Quality Assurance Officer	UNICEF
	Ruben Bayiha	Emergency Officer	UNICEF
	Dom Scalpelli	Country Director	WFP
	Susanne Thorsboll	Humanitarian Aid Co-ordination Officer	UNDP
	James Chiusiwa	Chief Relief Officer	Poverty and Disaster Management Affairs (PDMA)
	Marion Chindongo	Associate Director (Emergency Response Disaster Mgmt- ERDM)	World Vision – Malawi (WVM)
	John Parmar	Commodities Manager - ERDM	WVM
Blantyre	Kate Harawa	Country Co-ordinator	Water For People - Malawi
	Ephrome Mwenitete	Program Officer	Water For People - Malawi
	Sanjay Awasthi	Country Programme	Oxfam - Malawi

Place	Name	Designation	
		Manager	
	Mary Khozomba	Food Security Advisor	Oxfam - Malawi
	Yohane Kangwira	Acting Programme Manager	Oxfam - Malawi
Chikwawa	Audrick Machewo	Commodities Supervisor	WVM
	Charles Malonda	Sponsorship Co-ordinator	WVM
	Lende	District Commissioner	Chikwawa District Administration
	Fombe	Group Village Headman	Chikwawa District
Chikwawa	Patilawo	Group Village Headman	Chikwawa District
	Ntombosola	Group Village Headman	Chikwawa District
	Dyton Robert	Village Headman	Chikwawa District
Mozambique	Noel.Cooke	Programme Officer	EU Delegation Maputo
Maputo	Albert Losseau	Programme Officer	EU Delegation Maputo
	Sylvie Millot.	Head of Operations.	EU Delegation Maputo
	Eric von Pistohlkors	Head of section, social sectors and humanitarian assistance.	EU Delegation Maputo
Chokwe	Thomas Kellner	Project Manager	German Red Cross
	Rabeca Chalufu	Project co-ordinator	Mozambique Red Cross
	Amelia Murumaio	Emergency Response	Mozambique Red Cross
	Simao Nhassengo	Water and Sanitation Co-ordinator	Mozambique Red Cross
Maputo	Suzana Saranga Loforte	Deputy Director	National Directorate of Water (DNA)
	Pedro Cambula	Senior Engineer (International Rivers)	DNA
	Fatima Belchior	Director of Co-ordination	National Institute for Disaster Management (INGC)
	Olga Morar	Department of International Co-operation	INGC
	Alda Pereira Massinga	Co-ordinator	INGC-Center for Emergency Operations (CENOE)
	Joseph Kamara Kihika	Humanitarian Emergency Affairs Director	World Vision - Mozambique
	Matthew Bader	Regional Representative	Jacana
	Eng. Wolfgang Stiebens	Principle Project Assessor	PRO-GRC Buzi River Basin Project
	Horst Hertel	Country Director	GTZ
	Manuela Muianaga	UN-Habitat Project Co-ordinator for Mozambique	Ministry for Coordination of Environmental Affairs (MICOA)
	Domingos Mosquito Patricio	Head, Observations and Network Department	Institute of Meteorology (INAM)
	Elias Vasco	Head, IT Department	Institute of Meteorology

Place	Name	Designation	
			(INAM)
	Joseph Kamara Kihika	Humanitarian Emergency Affairs Director	World Vision
	Sune Gudnitz		OCHA (Geneva)
Beira	Chad Lipton	Cholera Project Co-ordinator	MÉDICOS COM AFRICA (CUAMM)
	Manuel Américo Fobra	Director General	Regional Water Administration for ARA Centro
Quelimane	José Daniel	Community Disaster Preparedness Plan Co-ordinator	World Vision - Mozambique
	Jao Zamissa	Regional Director	INGC-Zambezia
Quelimane	Honorio Vaz	Co-ordinator	INGC-Zambezia
	Nilza Manuela Francisco	Zambezia Provincial Head	Mozambique Red Cross Society
	Ussumane Amade	Chief for Housing and Urban	Regional Water Administration for ARA Zambezia
Madagascar Antananarivo	Jean-Claude Boidin	Head of Delegation	EC-Delegation
	Bernard Rey	Head of Sector	EC-Delegation
	Jacqueline Umwamwiza	Chargée de Programme Sécurité alimentaire ONG	EC-Delegation
	Nicholas R. Webber	Représentant	CARE Madagascar
	Didier Young	Program Co-ordinator	CARE Madagascar
	Manfred Drechsler	Deputy Head of Division	European Investment Bank – Southern Africa and Indian Ocean (Luxemburg)
	Martin Smith	Representative	FAO
	Bruno Maes, Francisco Basili, Dr. Nilda Ruiz Lambo, Beatrix Weide,	Representative Programme Co-ordinator, Child Programme Head Of Logistics	UNICEF, Madagascar, Mauritius, Comoros
	Jeremie Toussaint	Humanitarian Affairs Officer, Natural Disasters Response Coordination	UNDP
	Gianluca Ferrera	Deputy Director	WFP
Fort Dauphin	Jean Philippe Jarry	Program co-ordinator	CARE Programme Sud
	Dasy Ibrahim	Chef de Project TAMBIROA	CARE Programme Sud
	Sylvain Deffontaines	Responsible du Volet Agricole, Project TAMBIROA	CARE Programme Sud
Amboasary	Bengaly Kouyate	Chef Project Urgence	CARE Programme Sud
	Bartholdy AMS	Assitant, Social Mobilisation	CARE Programme Sud
Ambovombe	Raobijaona Jean Tovo	Co-ordinator	SAP

Place	Name	Designation	
	Mamenovala Foiavo	Responsable Regional	SIRSA
	Antoine Deligne	Co-ordinator	GRET/Objectif Sud Program
	Bernardin Endor	Responsable Production Semence	GRET/Objectif Sud Program
	Rakotoarisoa Sahondranirina	Interpreter	Hired on DIPECO Evaluation Mission
Comoros	Bernadette Nyiratunga	Head of Office a.i. Programme Co-ordinator	UNICEF Comoros
	Saandi Maoulida	Programme Assistant	UNICEF Comoros
	Opiah Mensah Kumah	Resident Co-ordinator,	UNDP
	Col. Ismael Mognedaho	Director of Disaster Management Comoros	COSEP
	Stefanos Gouvras	Councillor,	EU Delegation, Mauritius
	Audrey Robson	EU Office Comoros,	
	Nicholas Brodeur, Said Abdou, Abdourahmane Bacari	Delegate	French Red Cross
Kenya, Nairobi	DG ECHO Nairobi Nancy Balfour, Benoit Collin, François Goemans John Hayward, Johan Heffinck,	DG ECHO Nairobi	DG ECHO RSO & DG ECHO 01
	Robert McCarthy	Regional Emergency Adviser	UNICEF, Nairobi
Belgium, Brussels	UNICEF Brussels Office Peter Delahaye Sylvie Fouet	Head of Office Programme Officer	UNICEF Brussels Office