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DISASTER MITIGATION: A STRATEGIC APPROACH

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This document is submitted for approval by the Executive Board.

The Secretariat invites members of the Board who may have questions of a technical nature with regard to this document, to contact the WFP staff focal points indicated below, preferably well in advance of the Board's meeting.

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LIST OF ACRONYMS IN THIS DOCUMENT

CRED	Centre for Research on the Epidemiology of Disaster
DAC	Development Assistance Committee
DPCCN	Department of Natural Disaster Relief Coordination
DPRK	Democratic People's Republic of Korea
EMOP	Emergency operation
FAO	Food and Agriculture Organization of the United Nations
GTZ	German Agency for Technical Cooperation
IASC	Inter-Agency Standing Committee
IDNDR	International Decade for Natural Disaster Reduction
IEFR	International Emergency Food Reserve
IFRC	International Federation of the Red Cross and Red Crescent Societies
IRA	Immediate Response Account
LCA	Logistics capacity assessment
LIFDC	Low-income, food-deficit country
MOU	Memorandum of Understanding
Nat-Cat	Consortium for National and Technological Catastrophes
NGO	Non-governmental organization
OCHA	Office for the Coordination of Humanitarian Affairs
OECD	Organization for Economic Cooperation and Development
PRRO	Protracted relief and recovery operation
SEO	Special emergency operation
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNV	United Nations Volunteers
VAM	Vulnerability analysis and mapping
WFP	World Food Programme
WIS	WFP Information System



INTRODUCTION

1. Natural disasters are a major cause of global food insecurity, particularly in poor countries. In addition to the loss of life and shelter, the very basis of people's livelihoods is often undermined by recurrent natural hazards, leading to a decline in the capacity to meet basic needs, including food.
2. A number of evaluations of humanitarian aid have highlighted that short-term relief interventions act primarily to save lives and do little to promote longer-term resilience to future crises. Two general conclusions appear to have emerged: greater priority must be given to preventive as opposed to curative measures; and a stronger link needs to be forged between relief and development efforts.
3. The importance of system-wide cooperation in disaster reduction was highlighted at the July 1999 session of the United Nations Economic and Social Council. In the Report of the Secretary-General on the International Decade for Natural Disaster Reduction (IDNDR), disaster reduction was identified as "a main long-term solution for communities at risk, and for the international community at large, to avoid death and destruction, to reduce the loss of property and assets, to contribute towards effective sustainable development, to alleviate poverty and to provide for equal social and economic opportunities".
4. Moreover, the World Food Summit Plan of Action (1996), in particular Commitment Five, identifies effective preparedness and prevention measures as critical to combating threats to food security in both development and recovery situations.
5. In May 1999, the Executive Board of the World Food Programme (WFP) approved the policy document *Enabling Development* (WFP/EB.A/99/4-A), which identified disaster mitigation for recurrent natural disasters as one of the priority areas for development programming.¹ This paper discusses measures to implement this policy.

WHY ARE NATURAL DISASTERS IMPORTANT?

6. Natural disasters are on the rise. The past decade has seen a tripling in the number of large natural disasters compared to the 1960s, and more major natural disasters occurred in 1998 than in any other year on record². This trend is expected to continue, according to experts. Additionally, the extent and severity of human and economic damage caused by natural disasters are increasing³.
7. Natural hazards are not by definition disasters. It is people's inability to cope in the face of a natural phenomenon that creates a disaster.

¹ Disaster mitigation for WFP is the reduction of vulnerability to the effects of natural disasters on people's food insecurity. For the purposes of this paper, the term 'mitigation' includes preparedness, prevention and response to early warning. A detailed discussion of WFP terminology can be found in *Prevention and Preparedness: Mitigating the Effects of Natural Disasters*, WFP 1998.

² IFRC, 1999. *World Disasters Report 1999*. Geneva.

³ IFRC, 1999 *ibid*



8. Over the last decade, natural disasters have killed around 128,000 people and affected another 136 million, on average, every year⁴. Unless serious measures are taken, the number of people affected by natural disasters will most likely double in the next 30 years⁵.
9. **People in developing countries are particularly affected by natural disasters.** Developing countries account for 96 percent of all reported deaths arising from natural disasters due to their high rates of poverty and inadequate national capacity for disaster response and prevention⁶.
10. **In the wake of civil strife, even the smallest disturbance in weather patterns can have a devastating effect.** The increasing frequency of civil conflict has augmented communities' vulnerability to natural disasters.
11. **Economic shocks, and the subsequent deterioration of government capacity and services, make people in countries which were less food insecure in the past highly vulnerable to climatic vagaries.** Recent events in the Democratic People's Republic of Korea and Indonesia demonstrate the harmful effects that severe economic decline can have on a population's capacity to cope with natural hazards. They also show the important impact that such events have in urban settings and the need for increased capacity to respond to urban crises.
12. **In some areas, people's vulnerability is increasing as they resort to unsustainable practices in order to meet basic food needs.** Increasing population and poverty are forcing communities to degrade their productive base to survive. Unsustainable farming practices causing deforestation, soil erosion and water depletion increase flooding, mudslides and the impact of drought. As some populations live on the margin, even minor deficits in rainfall or crop yields, or reductions in landholdings can easily turn into disasters.
13. **Increased vulnerability means poor households are ill-equipped to handle even small-scale and localized risks.** In cases of successive natural disasters, poor households become more susceptible to future events and have a decreasing ability to recover after the shock. Small-scale hazards are often left to the affected communities to deal with, which can represent a major set-back for the poorest. A small-scale crisis often has long-term effects on impoverished households.
14. Evidence shows that without prevention and mitigation efforts, the impact of disasters on vulnerable communities and their resources is greater, and the recovery process is longer⁷.

Trends in WFP Funding

15. Natural disasters figure prominently in WFP's relief interventions. Over 55 percent of WFP's emergency operations in the last ten years have been in direct or indirect response

⁴ IFRC, 1999 *ibid*

⁵ UNDP, 1999 Summary Proceedings from the Internal Workshop on Natural Disaster Management. June 1999. Beijing.

⁶ IFRC, 1999 *ibid*

⁷ IFRC, 1999 *ibid*



to natural disasters⁸. In 1997, 20 out of 40 approved emergency operations (EMOPs) were developed in response to drought, crop failures, flooding and other natural events, representing 67 percent of total operational costs for emergency relief. In 1998, the figure rose to 34 out of 47 total EMOPs, and represented 83 percent of total emergency commitments.

16. Data from the last decade reveal that the average number of countries requiring WFP assistance for natural disasters each year range between five and ten; in peak years, more than ten countries are affected. In 1988, for example, 15 countries were affected by natural disasters requiring WFP emergency assistance; in 1992, another peak year, 23 countries required assistance; and in 1998 the figure had risen to 26 countries.
17. WFP's financial figures also reveal an upward trend in expenditure on natural disasters during the decade. In 1988, US\$94 million was approved for relief for natural disasters; by 1998, a year with an unusually large number of natural disasters, the figure had risen to almost US\$600 million⁹.

FUTURE DIRECTION—A STRATEGIC APPROACH TO MITIGATION

18. Background work to identify key principles in WFP's disaster mitigation strategy included a review of the literature, discussions with donors, and a review of all Country Strategy Outlines (CSOs) and/or Country Programmes (CPs) approved as of June 1998, covering 38 countries. Additionally, selected EMOPs, and evaluations of relevant projects were examined. WFP also participated in an international workshop sponsored by the United Nations Development Programme (UNDP) and the Office for the Coordination of Humanitarian Affairs (OCHA) in Beijing, China. Lastly, four case studies in Bangladesh, the Democratic People's Republic of Korea, Ethiopia and Malawi were undertaken in 1999.
19. Based on the analysis carried out, WFP's disaster mitigation strategy should incorporate the following seven key principles:

In Countries Prone to Recurrent Natural Disasters, Development Activities and Eventual Emergency Interventions Need to be Closely Linked

20. The key to successful mitigation strategies is to combine short and long-term interventions (relief and development) in mutually reinforcing ways. As stated in a recent famine prevention study, "famine mitigation should be as relief-oriented as necessary, and as developmental as possible"¹⁰.
21. In practice, however, the planning for relief operations tends to be carried out in isolation of ongoing development programmes, and development programming may not adequately take account of natural disaster risks and vulnerabilities.

⁸ For a comparison between WFP's response to natural disasters and the world-wide occurrence of natural disasters, see Annex I.

⁹ This figure includes both the Democratic People's Republic of Korea and Indonesia, countries which experienced a combination of both severe economic decline and natural disasters.

¹⁰ Von Braun, J., Teklu, T. & Webb, P. 1999. *Famine in Africa: Causes Responses and Prevention*. Baltimore. John Hopkins Press.



22. A step has been taken in this direction with WFP's Protracted Relief and Recovery Operation (PRRO) guidelines, which emphasize strategic planning for prevention in recovery situations. The recently approved PRRO for the Democratic People's Republic of Korea reflects this new approach. A similar approach needs to be adopted in WFP's development programming. Preparedness, including contingency and operational planning, is an essential element to reinforce the complementarity between emergency and development interventions.

Disaster Prevention, Preparedness and Eventual Response Need to be an Integral Part of the United Nations Development Assistance Framework (UNDAF) Process

23. Natural disasters are more likely to have a devastating impact the greater the general vulnerability of the population. Efforts to reduce the impact of disasters on the most vulnerable women, men and children must go beyond making sure these groups return to 'pre-disaster' conditions. They must also be at the heart of development measures over the long term. Awareness of the relationship between disasters, development and external assistance is fundamental to effective preparedness and prevention interventions.
24. Common Country Assessments and the UNDAF should address the reduction of people's vulnerability to natural disasters in countries subject to recurring natural disasters. Additionally, WFP should integrate disaster mitigation, where appropriate, in Country Strategy Outlines, Country Programmes and PRROs.
25. This involves reviewing:
- past natural disasters and their effect on the food situation of vulnerable populations;
 - the strengths and weaknesses of previous disaster responses;
 - institutional capacity and national and local policies concerning disaster mitigation.
26. It also implies evaluating the likely type, intensity and effects of future events on vulnerable populations. Such information is key to identifying and designing activities.

Disaster Mitigation Depends on Structural and Non-structural Solutions at both the National and Community Level

27. Disaster mitigation is much more than just building dams, dikes, shelter belts and earth bunds. Government institutional capacity and a supporting policy environment are critical to the success of the more 'technical' solutions to mitigate natural disasters.
28. The experience from Bangladesh, China and other countries suggests, for example, that flood mitigation can be much more effective when works on physical structures is combined with non-structural measures, such as legislation, training, education, public awareness, building of institutions and early warning systems (International Workshop on Natural Disaster Management, Beijing, June 1999).
29. Furthermore, natural disasters are often not just a national problem, but tend to affect several countries in a region. There is an increasing need for regional information-sharing and policy-making concerning coordination and implementation of both prevention and preparedness activities.
30. Working closely with local and national institutions, as well as international partners, to improve capacity to determine when, where and what type of intervention is appropriate should be an essential element of WFP's mitigation strategy. Moreover, linking WFP



disaster mitigation activities to a broader national mitigation effort is key to long-term vulnerability reduction.

Mitigation Should be a Principal Objective of Projects in Disaster-Prone Areas

31. Many development projects in marginal areas that are disaster prone have general poverty alleviation objectives. These might or might not help households cope with repeated disasters. Conventional development aid rarely recognizes the erosive effects of repeated shocks to vulnerable households and what measures are needed to reduce their uncertainty and increase their resilience¹¹.
32. Increasing vulnerability in areas prone to disaster needs to be addressed directly through interventions that are preventive in nature. For WFP, simply "being there" does indeed have a positive effect if a natural disaster occurs; however, it is not enough. The diversity of situations faced by poor households in disaster-prone areas and the dynamic nature of natural disasters calls for WFP to include mitigation objectives in both development and recovery activities.

Targeting Must Focus on Those Who Cannot Cope With Recurrent Disasters, Not Just Those Who Live in Disaster-Prone Areas

33. Those who are most at risk of natural disasters are not necessarily those who are most vulnerable to hunger. WFP's mitigation interventions target those whose coping capacity in the face of a natural disaster is insufficient to meet their food needs.
34. The vulnerability and responses of disaster-affected groups to diverse shocks are variable and depend on their local resource base, livelihood structures, coping strategies, cultural values and traditions. Participatory approaches offer one means of identifying ways in which to design, implement and monitor measures that reduce the impact of hazards on the ability of poor households to ensure their food security.

Understanding Gender Relations Within the Context of Natural Disasters Plays an Important Role in Disaster Mitigation Strategies

35. The higher rate of poverty among women and cultural constraints on their activities in some societies mean they are more likely to suffer losses of life and property in the face of natural disasters. The role of women in ensuring household food security, and their dependence on natural resources to do this, reinforce the impact disasters may have on them. Moreover, men often migrate during the onset of some natural disasters, for example drought and slow flooding, in search of supplemental income; this leaves women to fend for themselves and assume even greater responsibility for caring for their family.
36. In post-disaster situations women are often more vulnerable than men. Their care-giving roles expand dramatically after a disaster and experience shows that their access to resources for recovery is constrained. Understanding gender relations within the context of natural disasters plays an important role in designing appropriate disaster mitigation strategies.

¹¹ Ross, J., Maxwell, S. and Buchanan-Smith, B.1994. Linking Relief and Development. IDS Discussion paper 344. Sussex.



Preservation of Livelihoods Must be a Central Goal of Disaster Mitigation Measures

37. Disaster mitigation for poor households means avoiding destitution through measures taken before an acute crisis is actually reached. This requires:
- earlier and more targeted warning of unfolding threats to food security by monitoring people's food security, including coping strategies; and
 - measures that prevent irrevocable erosion of the subsistence base of poor households¹².
38. Factoring in the coping capacity of populations in the face of hazards is an area where implementation is lagging far behind the understanding of famine processes emerging from research and experience over the past decade. Improving WFP's analytical capacity to interpret data as well as helping to build the same capacity in relevant national institutions is critical to defining appropriate actions for intervening early enough to protect hard-won development gains from being destroyed.

ELEMENTS OF A DISASTER MITIGATION STRATEGY

39. Key elements necessary to translate these principles into practice are outlined below.

Preparedness

40. WFP's current preparedness activities focus primarily on responding rapidly to emergency situations. They fall into two categories: those that have to do with advance knowledge and planning for potential emergencies, and those that relate to inputs for immediate response¹³. WFP tends to concentrate its advance planning at the very outset of declared emergency situations, rather than within the broader development framework of a Country Programme.
41. Early warning is part of preparedness. Vulnerability analysis and mapping (VAM), working closely with international and national early warning and information systems, can provide a sound basis for determining when and who needs food assistance. However, accurate and timely early warning does not necessarily translate into appropriate and timely responses so that people's livelihoods can be protected, local response capacities supported and assets preserved. Special measures are needed to ensure that response is linked to early warning.
42. For a variety of reasons, concerted decisions by donors, governments and WFP about when to respond are often difficult to make. Coordination that defines actions and lines of responsibility *before* a crisis point is reached is crucial. For WFP, this means better and greater communication with donors in-country as well as with national governments, particularly in the early phases of a potential crisis. Mali's Cereals Market Restructuring Programme offers a model of how donors, government and WFP can work together with a national early warning system to make concerted decisions concerning food assistance requirements.

¹² Walker, P.1989. Famine Early Warning Systems: Victims and Destitution. London Earthscan Publications Ltd.

¹³ WFP has developed a range of tools for preparedness and rapid response, the details of which are presented in Annex II.



Contingency Planning

43. Contingency planning is part of preparedness, and is a key element in reducing the impact of disasters and promoting recovery as swiftly as possible. It is much more than just a logistics exercise; contingency planning is a *process*, which needs to be both strategic and operational. This process is used for both natural disasters and conflict situations. In the case of natural disasters, it couples forecasting information about the occurrence of a hazard with planning appropriate measures to better prevent and/or respond in coordination with other actors.
44. Past WFP contingency planning exercises have been informal, scattered and often carried out in isolation from other planning and programming. Exercises to date have used different methodologies, or taken the form of specifically targeted exercises, in the absence of a structure formally responsible for coordinating and systematizing contingency planning activities. WFP is currently taking steps to define its framework for contingency planning, and to identify a technical and coordinating mechanism within the Programme.
45. Additionally, in many countries where WFP operates, there is little evidence of existing coherent contingency plans for mitigation of natural disasters by governments, donors or non-governmental organizations (NGOs). Most of the public stakeholders affected by and dealing with natural disasters have limited experience in interpreting information presented in terms of probabilities and levels of risk which are necessary elements of contingency plans.
46. WFP, in coordination with its partners, should initiate contingency and operational plans in disaster-prone countries as part of the country programming and PRRO process, in order to both strengthen mitigation objectives in country strategies and to link, where possible, response to early warning with ongoing development activities. WFP should also conduct contingency planning for selected disaster-prone countries, perhaps within a regional exercise, for those countries where WFP does not have development or recovery programmes. On a selective basis, WFP may decide to develop contingency plans in countries where it does not have an ongoing development programme, but where the likelihood of an emergency is high.

Regional Contingency Planning

47. Many natural disasters are not confined to national boundaries. And even when one country is affected, the cause may be related to an event in a neighbouring country; the 1998 floods in Bangladesh were caused in part by excessive rains on denuded hills in the Himalayas. Thus, both information and response often need to be looked at and coordinated from a regional perspective. This, however, is easier said than done. Even in areas with a regional institution, there are often difficulties in designing a common approach to disaster prevention and response. These difficulties may stem from differences in national policies and priorities, as well as differences in the level of national institutional capacity to operationalize any plans.
48. Despite these difficulties, WFP should consider more regional contingency planning exercises, such as the one carried out in 1997 in Southern Africa for El Niño. Regions such as Southern Africa and the Sahel, and possibly others, would be appropriate clusters in which to carry out regional contingency planning. WFP's decentralization of responsibilities, and the clustering of country offices by regions lends itself well to planning on a regional basis.



Where to Carry Out Contingency Planning?

49. Two methods were used to identify priority countries for contingency planning for natural disasters. The first method involved calculating a composite score, combining both frequency of WFP intervention and magnitude (mean number of WFP beneficiaries). The second method used criteria based on both WFP and non-WFP data: countries identified were those that met two out of the four criteria¹⁴. This method produced a list of 30 countries, of which 27 were also on the first list. The lists were then combined.
50. Certain countries were then excluded due to the strength of government capacity in disaster mitigation and the existence of contingency plans for natural disasters. Other countries were excluded because WFP is either in the process of or has already phased out development activities.
51. This is the proposed list: in **Africa**: Angola, Chad, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritania, Mozambique, Niger, Rwanda, Somalia, Sudan, Tanzania, Uganda and Zambia; in **Asia**: Bangladesh, the Democratic People's Republic of Korea, Laos, Nepal and Pakistan; and in **the Americas**: Cuba, Ecuador, Guatemala, Honduras and Nicaragua. It will not be possible to undertake contingency planning exercises in all these countries at once. Contingency planning should be phased in as part of Country Strategy Outlines, Country Programmes or PRROs.

Targeting for Disaster Mitigation

Knowing Who and Where to Target

52. Understanding the relationship between people's vulnerability to hunger and their proneness to natural disasters is key to WFP's targeting process. Because a population lives in a drought zone does not mean that it is highly vulnerable to hunger because of the drought. Pastoralists, for example, have been traditionally more resilient to drought than their more sedentary agricultural neighbours. Gender must also be considered. Women's responses to natural disasters are conditioned by their many other responsibilities. Efforts to target women and expand their involvement in disaster mitigation activities must take this into account.
53. Countries are often affected by different types of disasters. For example, Bangladesh is subjected almost yearly to cyclones, floods and drought. This might mean that in order to geographically situate populations which are both food insecure and experience recurrent natural disasters, several targeting exercises might be necessary in order to analyse the location, frequency and intensity of the hazard, the food insecurity of the population and their particular coping mechanisms. Additionally, targeting should be sensitive to differences in vulnerability between and within communities and households.
54. In deciding whether to target a certain geographic region, it is essential to know national and local mitigation capacity, as well as what international organizations are doing to assist populations in coping with natural disasters. If there is assistance in the region for disaster mitigation, then WFP should ensure that its programmes are complementary.

¹⁴ The criteria relate to i) whether a country has been a recipient of WFP assistance for natural disasters for any four out of 10 consecutive years, 1988-1998; ii) whether the mean number of beneficiaries per intervention was 250,000 or more; iii) whether a country has been affected by 15 distinct natural disaster events in the past 20 years using data from the Centre for Research on the Epidemiology of Disaster (CRED); iv) whether the mean number of persons affected per disaster was 200,000 or more using CRED data.



Knowing When to Intervene

55. WFP needs to develop a set of country specific indicators with governments, communities and other concerned partners to determine when, where and for whom prevention activities should be carried out. This would involve:
- a critical review of information concerning impending rather than immediate disasters;
 - the creation of a 'disaster profile' for the appropriate countries;
 - an understanding of the relationship between recurrent natural disasters and people's vulnerability to hunger.
56. In many countries, the first two of these exercises may have already been carried out by national early warning and information systems. WFP's VAM units are equipped to undertake the third, and in some countries have already begun to look at populations' vulnerability to disasters and the subsequent impact on their food security. In some countries, this analysis is increasingly at the household level with a focus on capturing gender differences. Greater attention on determining the risks and dimensions of food shortages caused by recurrent natural disasters is needed in WFP's targeting process.
57. Analysing the coping capacity of populations in disaster-prone areas, in both 'normal' years and disaster years, should be a key element of WFP's targeting for mitigation activities. This will allow WFP to establish trigger mechanisms for launching a detailed on-site assessment and an eventual response. The elements that make up the trigger mechanisms (for example, cattle/maize price ratios, herd movements, school attendance) can then be monitored for significant changes.

Programming for Prevention and Response to Early Warning

Prevention as a Means of Reducing Vulnerability

58. WFP's prevention activities include support for managing natural resources, constructing or rehabilitating infrastructure which directly protects against disasters, and promoting rural livelihoods of the poor.
59. These activities can be divided into two categories:
- activities that are planned and designed to prevent or reduce the effects of disasters on food-security before the hazard occurs; and
 - activities that are implemented as rapidly as possible in response to early warning to prevent potential disasters and their effects on food security from escalating, or from carrying over into a new cropping season.
60. Prevention interventions may involve constructing or restoring rural infrastructure to limit, for example, the damage of flood water or slow the advance of desertification. A physical structure such as a sea dike, gabion or small dam may prevent a flood from destroying crops and other assets, whereas a shelter-belt along a coastal beach would help to reduce loss from a hurricane. The construction of improved storage facilities or the establishment of grain banks managed by local communities are also prevention measures.
61. While many of WFP's activities have the potential to help prevent or reduce the impact of a natural hazard on vulnerable populations, often they do not have explicit disaster prevention objectives. Explicit mitigation objectives will ensure more effective interventions. The use of participatory, gender-sensitive approaches to define objectives, activities and responses to early warning has proved to be effective in mitigating the effects



of natural disasters. For WFP, the issue is not only to reduce the physical event of a flood or a drought, but specifically to reduce its impact on people's long-term vulnerability to food insecurity.

62. Such activities must be systematically undertaken in countries where natural disasters are a frequent occurrence. Moreover, they must be designed so that they serve the needs of those least able to cope in the face of a disaster. Lastly, they should be part of an integrated package that includes inputs and activities from government, NGOs and United Nations partners.

Response to Early Warning with Pre-planned Activities

63. A second set of activities is intended to help people through a crisis. Activities of this kind would have to be pre-planned and then brought into effect, and funded, most likely through an EMOP when a problem actually arises. Often such activities would be oriented towards the preservation or protection of assets through the provision of food transfers.
64. Activities implemented at the onset of a crisis are often called "safety nets". The objective of a food-based safety net is to prevent poor people's access to food from temporarily falling below minimum acceptable levels. Food-based safety nets use targeted food-assistance programmes to help populations suffering from shocks, including natural disasters. Populations in disaster-prone areas are thus able to preserve their assets, and hence their livelihoods.
65. One means of assisting vulnerable populations during years of food shortfalls is to pre-arrange with partners to channel food assistance through their projects. For example in Kenya, WFP has assisted a German Agency for Technical Cooperation (GTZ) integrated food security project to target the most vulnerable with food for work during drought periods. In disaster-prone areas, food inputs can be programmed to support community-based projects according to the general food situation in the area. WFP can plan to programme food aid in combination with other assistance during abnormal rainfall years or flooding years as a safety net for vulnerable families.
66. Another way of implementing a safety net programme is to expand existing development projects when food shortfalls occur. The main advantage of this mechanism is that by using existing development projects, the necessary institutional and logistical infrastructure are already in place, making the delivery of additional resources relatively easy and quick. An analysis of WFP emergency operations from 1988 to 1998 shows that approximately 75 percent of emergency operations for natural disasters occur in countries with ongoing development projects. Scaling up generally takes place by enlarging the number of people covered by the project, either by expanding the geographical coverage or by including new beneficiaries in the target group.
67. Advance planning needs to be carried out to identify appropriate activities for expansion, given the effect of a natural disaster on the food security of a given population. Moreover, experience shows that scaling up can be difficult and has mixed results in reaching those most in need. The success of mitigation strategies and operations depends on matching the activities planned with the event and the vulnerability of the population.
68. A careful look at exit strategies must also be part of advance planning. Starting and stopping food-assisted activities can cause problems, and clear indicators for when food assistance should stop or be scaled down are critical.



69. Experience to date reveals the following outcomes of using school feeding, supplementary feeding for mothers and children and asset creation as a means of helping people through a crisis.
70. **School feeding:** The scaling-up of school feeding projects during years of food shortfalls due to climatic vagaries is already being carried out in several countries. The critical question is: who goes to school in the area concerned? The answer varies widely. However, if it is found that during periods of unusual stress on family food security the poorest do not send their children, especially girls, to school, then expanding the school feeding programme in affected areas might be an appropriate way to target those in need.
71. In some situations, meals should be provided to children of the appropriate age group (usually pre-primary and primary) who are not registered or who are not going to school. The objective becomes blanket coverage of a specified age group in the targeted location. However, it is possible that the effects of feeding children at school could be weakened as they will probably be given less food at home during times of *extreme* food shortage. Thus, this type of intervention is appropriate as a mitigation strategy either in the early onset of a potential crisis or during a year where food shortfalls are above normal but have not reached a crisis stage.
72. **Supplementary feeding and mother and child health (MCH) programmes:** Supplementary feeding for nutritionally vulnerable children and mothers through feeding centres or MCH centres with nutritional screening can ensure that the most malnourished and vulnerable members of this age group are reached. This type of programme is, by definition, supplementary or additional to regular sources of food.
73. This type of programme can be strengthened by distributing special foods that others in the household will not eat. For example, high protein weaning foods and biscuits can be targeted effectively to lactating mothers and young children without the risk of nutritional dilution through sharing rations with other household members. On-site feeding is another solution, when health centres are equipped for this. Another solution during the onset of a disaster is to give rations to all children in households where there is evidence of child malnutrition.
74. **Asset creation:** Asset creation activities are effective in helping to mitigate or reduce the impact of future disasters and as a safety net during food shortfalls. These activities have proved to be an effective means of intervening before destitution sets in, and before livelihoods are destroyed. With all asset creation activities, WFP needs to ensure adequate technical supervision, complementary input and women's participation in identifying activities that are of paramount importance to them. Advance planning is necessary if scaling up food for work is to be successful as a safety net for the most vulnerable.

Mitigation Packages—Working with Partners

75. WFP's contribution to disaster mitigation through, for example, the construction of rural infrastructure, should be just one element in an overall mitigation strategy. To have maximum impact, WFP's mitigation activities need to fit within a broader framework, to ensure technical inputs to handle a particular type of natural disaster as well as consistency with national and local policies. For example, in Malawi it was noted that drought can have a permanent impoverishing effect, and that poor households do not recoup losses in subsequent favourable seasons since they are no longer creditworthy for fertilizers and



other inputs. This experience suggests that food for work be designed to coincide with other prerequisites, such as access to production inputs¹⁵.

Forging Partnerships

In Mozambique, WFP has been active in pushing forward disaster management as a key policy issue among United Nations agencies, government and donors. WFP is the lead United Nations agency for disaster management in Mozambique and chairs the UNDAF Disaster Management Theme Group.

In early 1997, WFP, UNDP and several bilateral donors sponsored a workshop at which it was agreed to formally recognize disaster management through legislation, including the development of a national plan and the re-focusing of the responsible government agency. In 1998, WFP and the United Nations Children's Fund (UNICEF) signed a local Memorandum of Understanding (MOU) for activities in the area of disaster management and co-funding of field visits led by the Department of Natural Disaster Relief Coordination (DPCCN) to all ten provinces to formulate profiles on the main disasters affecting the country. In mid-1999, WFP sponsored a key inter-ministerial meeting at which the profiles were reviewed and decisions taken to prepare the national plan. WFP, UNICEF and the World Health Organization (WHO) also provided joint support to a local NGO to undertake a study of local coping mechanisms in the context of disaster mitigation.

WFP has also entered into a unique arrangement with UNDP, in which the two agencies have agreed to co-finance a full-time international disaster management officer placed in the WFP office. Through this special arrangement, WFP and UNDP were able to offer valuable support to the DPCCN in developing a National Disaster Management Plan. WFP is also working to support the implementation of a UNDP capacity-building project executed by the DPCCN. WFP sits on a tripartite working group that provides oversight to the project implementation and has also identified and monitors the international consultants.

To commemorate the end of the United Nations Decade for International Disaster Reduction, the United Nations Disaster Management theme group agreed to support a campaign to increase awareness about disaster prevention and mitigation. The campaign is targeted at secondary schools throughout the country. WFP is taking the leading role in the development and implementation of this awareness campaign. In addition to United Nations support, private sponsors have also been identified.

In recognition of the important role that communities have to play in disaster management, WFP Mozambique has also just launched a new project whose overall goal is to reduce the disaster vulnerability and food insecurity of nutritionally at-risk communities. The project seeks to build the capacity of communities and districts by making them the key players in their own efforts to mitigate disasters through a bottom-up approach.

WFP Mozambique continues to encourage active participation of donors in disaster management issues through periodic donor meetings on issues such as contingency planning, emergency relief, and disaster management policy and planning.

76. In order that the different components of a mitigation strategy form a coherent package, WFP must work closely with its partners and help build the capacity of local, national and regional institutions dealing with disaster mitigation.
77. The role played by local government institutions and community leadership structures, including women's associations, cannot be underestimated. Their full participation in the dialogue about what are the key problems, and for whom and how to best address them is essential. Men and women subjected to repeated natural disasters have developed their own coping strategies. It is important to understand and support those coping mechanisms that are positive when designing and implementing interventions. For example, in many areas subject to recurrent flooding, communities raise the houses to avoid flood waters entering, but the poorest households are unable to invest in this type of prevention effort. WFP's development programmes are well-suited to providing support to such traditional coping strategies both before and after a shock, preventing the loss of productive assets and providing 'buffers' against food insecurity.

¹⁵ WFP. 1999 Contingency Planning Guidelines, draft, Rome.



78. Experience shows that when implementing food for work to create community infrastructures it is better to ensure, if possible, that there is an income-generating element to the project. For example, when planting tree stands to protect against soil and wind erosion, the use of fruit trees, if possible, would be a better choice. Although disaster mitigation is understood by communities, other more pressing and immediate issues face poor households. The inclusion of an income-generating element helps to ensure participation of targeted beneficiaries in the project.

Inter-Agency Coordination

79. WFP is working through inter-agency mechanisms such as UNDAF to improve coordination in planning and implementation of mitigation activities within a development context. WFP also co-chairs, with UNICEF, the Sub-Working Group of the Inter-Agency Standing Committee (IASC) on Gender and Humanitarian Assistance which was instrumental in developing the Policy Statement for the Integration of a Gender Perspective in Humanitarian Assistance.
80. In all countries where there is an UNDAF theme group on disaster management, WFP is an active member. In several countries, WFP is head of the disaster mitigation theme group. At the country level, the disaster management theme groups, in close consultation with the Resident Coordinator system, are the primary policy, strategy, advocacy and operational coordination mechanisms for disaster mitigation. The new Inter-Agency Task Force for Disaster Mitigation will be another mechanism for coordination among United Nations partners.
81. The World Bank Disaster Management Facility has initiated a Consortium for Natural and Technological Catastrophes (Nat-Cat). Nat-Cat's objective is to reduce disaster risk in disaster-prone developing countries, making disaster prevention and mitigation an integral part of development efforts. WFP is a member of this consortium of public and private sector concerns.

Resources for Recurring Natural Hazards

Funding for Disaster Mitigation

82. Disaster mitigation needs to be grounded in development planning and thinking. However, when additional resources are required for early response to natural disasters, WFP should use its emergency funding window or the contingency mechanism within the PRRO. By combining development, recovery and emergency funding in a coherent and planned manner, programming for disaster mitigation can be carried out in a smooth and consistent fashion.
83. Within the limits of approved resources and in agreement with the government, WFP Country Directors may approve and organize a new, additional activity in the context of an ongoing project or where a country programme includes an explicit provision for recurrent disasters. Thus, very small, localized disasters may be covered through country programme resources.
84. When small-scale needs cannot be met by using already-approved resources or budget revisions, or the impact of an event requires a more substantial early response, an EMOP is launched. WFP has three levels of authority for approving EMOPs. For smaller-scale events, or to jump start a response, the Country Director has the authority to approve an Immediate Response EMOP of up to US\$200,000 total cost, including direct and indirect costs. Three-quarters of the Immediate Response EMOPs to date have been used for



response to natural disasters. The duration of assistance has ranged from 12-14 days (response to hurricanes) to four months; the volume has ranged from 168 to 750 tons.

85. To forestall a slowly developing disaster, such as a drought, activities of up to one year, with a food value of less than US\$3 million, can be resourced through an EMOP approved by the Executive Director. For larger-scale assistance, regular EMOPs may be proposed for joint approval by the Executive Director and the Director General of the Food and Agriculture Organization of the United Nations (FAO). Once an EMOP is approved, it is funded through donations. In order to speed up the availability of financing, the first tranche of emergency operations is funded through the Immediate Response Account (IRA).
86. In short, WFP has appropriate mechanisms for early response. Using them in a graduated and integrated manner is often the most appropriate means of response for natural disasters.
87. Increased donor contributions to WFP's Immediate Response Account, which is used to finance Immediate Response EMOPs, are important for WFP's early response to both small, localized natural disasters and to those which might evolve into a larger crisis.

Borrowing for Early Response

88. Borrowing commodities from a national security stock, development project stocks and, in some cases, PRROs is the fastest way to 'kick start' an emergency operation, as the commodities are often already stored nearby or *en route* to that country. Borrowing can occur within a country or when using food provided by WFP between different countries, and is a means to ensure early intervention.
89. Borrowing, however, can be problematic. In order to borrow from a country's national security stock, pre-planned arrangements need to be in place. In many countries borrowing agreements are already in effect. However, WFP does not have standardized procedures for borrowing from government stocks. This can cause delays in accessing the food. WFP needs to work with governments to determine levels of government lending and WFP repayment modalities to make borrowing arrangements more efficient and effective.
90. Experience shows that borrowing WFP-provided stocks within the same country poses few difficulties. The biggest constraints arise when commodities are borrowed across borders. The major problem encountered is donors' hesitancy to agree to the loan, and the extra costs that are sometimes incurred in implementing the loan. Donors are reluctant to send food that has been earmarked for a specific country, to another, neighbouring country to repay the loan.
91. Most development programming is done with multilateral funding. EMOPS, however, are resourced almost exclusively with directed contributions. Problems do not occur when borrowing from multilaterally-resourced development activities. They are most evident when trying to repay the loan with resources earmarked for an EMOP in a country other than the country of the original loan. Frequently, donors want their resources to be used in the country specified for the emergency operation.
92. If WFP is to borrow effectively, especially from neighbouring countries, to respond to natural disasters, it will need to work with donors to facilitate greater flexibility in the use of donations. This could mean either more multilateral donations, or pre-arranged borrowing agreements when giving commodities to regions where natural disasters are frequent, or the establishment of mechanisms to address cost differentials incurred in the borrowing and repayment of commodities between countries and between regions.



RECOMMENDATIONS

It is recommended that:

- Disaster prevention, preparedness and response to early warning should be an integral part of PRROs, Country Programmes and Country Strategy Outlines in countries that experience recurrent natural disasters on a country or regional basis.
- WFP should work closely with local, national and international partners to determine effective disaster mitigation interventions which are coordinated, and which fit into a broader national mitigation strategy.
- Contingency planning should be undertaken in a gradual manner in the following priority countries: **Africa:** Angola, Chad, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritania, Mozambique, Niger, Rwanda, Somalia, Sudan, Tanzania, Uganda and Zambia; **Asia:** Bangladesh, the Democratic People's Republic of Korea, Laos, Nepal and Pakistan; and **the Americas:** Cuba, Ecuador, Guatemala, Honduras and Nicaragua.
Where possible, contingency planning should be undertaken as part of the Country Strategy Outline, Country Programme or PRRO process.
- WFP's mitigation interventions should target populations in disaster-prone areas, whose coping capacity in the face of a natural disaster is insufficient to meet their food needs. Understanding the gender dimension of natural disasters needs to be part of WFP's targeting approach.
- WFP should seek to develop standard procedures for borrowing from and repaying to government food stocks. WFP will work with government counterparts to secure support for transferring resources from development programmes to PRROs and EMOPs.
- WFP should work with donors to seek greater flexibility in the use of donations for the purpose of disaster mitigation. This will include measures to find efficient and effective pre-arranged borrowing agreements for donations to regions where natural disasters are frequent, and mechanisms to equalize differential costs that may be incurred in lending and repayment activities.
- WFP should undertake further analysis of appropriate programming resources for use when natural disasters have a major impact on the urban poor.



ANNEX I

TRENDS IN WFP'S NATURAL DISASTER RESPONSE

The following two tables show distribution of WFP activities by natural disaster, compared to the general trend in natural disasters world-wide in low-income, food-deficit countries (LIFDCs). While these tables are difficult to compare, given different criteria for labelling a disaster, it is interesting to note that WFP appears to react more or less in accordance with the frequency of natural disasters world-wide (droughts, floods, hurricanes, typhoons and cyclones). The only divergence is that WFP intervenes more often in cases of drought. Note also that cyclones, hurricanes and typhoons are combined in the Centre for Research on the Epidemiology of Disaster (CRED) database, cumulatively accounting for 14.2 percent of world-wide disasters. When combined in the WFP Information System (WIS) database, cyclones, hurricanes, and typhoons account for 10.7 percent of natural disasters to which WFP responded, bringing it relatively close to the CRED data.

TABLE 1. NUMBER AND TYPE OF NATURAL DISASTER RESPONSES*
(WFP 1988–1998)

Disaster	Frequency	(%)
Drought	102	52.60
Floods	50	25.80
Pest damage	10	5.20
Hurricane	9	4.60
Typhoon	9	4.60
Earthquake	7	3.60
Cyclone	3	1.50
Cold	1	0.50
Food shortage	1	0.50
Landslide	1	0.50
Volcanic eruption	1	0.50
Total	194	100.00

* 'Crop failure' disasters have been excluded



TABLE 2. NATURAL DISASTERS BETWEEN 1989–98 (CRED) IN LIFDCs

Disaster	Frequency	(%)
Flood	296	39.80
Cyclone, Hurricane, Typhoon	106	14.20
Earthquake	91	12.20
Storm	86	11.60
Drought	49	6.60
Landslide	42	5.60
Volcano	28	3.80
Food shortage	18	2.40
Forest fire	8	1.10
Cold wave	6	0.80
Avalanche	5	0.70
Famine	5	0.70
Heat wave	2	0.30
Insect infestation	1	0.10
Tsunami ¹⁶	1	0.10
Total	744	100.00

¹⁶ A tsunami is a large sea wave, typically generated by seismic activity, that causes significant damage to coastal communities



ANNEX II

WFP'S PREPAREDNESS AND RAPID RESPONSE MECHANISMS CAN BE SUMMARIZED AS:

Knowledge and Planning

- **Vulnerability Analysis and Mapping:** VAM is an integrated system that provides information relevant to food security and people's vulnerability to hunger in order to improve targeting and programming of both development assistance and emergency response.
- **Logistics Capacity Assessments:** LCAs involve obtaining a baseline understanding of existing infrastructure (i.e. roads, ports, railroads), the availability of personnel and equipment to transport food, and the ability to store, manage and distribute food.
- **Contingency Planning:** In some countries, WFP both prepares and updates contingency planning and operational planning exercises. At present, most of WFP's contingency planning exercises are carried out in the context of an ongoing emergency to prepare for changing conditions. An exception was WFP's regional contingency planning in Southern Africa in light of the threat of effects from El Niño in 1997, and in 1998 regional contingency planning was carried out in the Sahel.
- **WFP's mechanisms** for increased access to inputs in the face of an unfolding emergency include funding, food stocks, human resources, equipment and service packages. These mechanisms are not only sophisticated, they are also, for the most part, highly effective in ensuring a quick response to save lives once an emergency has been declared.

Increased Access to Inputs for Immediate Response

Funding

- **Cash and food contributions to the International Emergency Food Reserve (IEFR):** This is one of the primary means through which WFP purchases and delivers food at the onset of an emergency.
- **The Immediate Response Account (IRA):** As an integral part of the IEFR, it provides WFP with readily available untied cash to permit an immediate response to new emergency situations. The ceiling target of the IRA is US\$30 million annually.
- **Cash for Special Emergency Operations (SEOs):** This is a separate funding category used for airlifts, special logistics needs, emergency infrastructure rehabilitation, staff costs, equipment and general emergency operation support requirements.
- The WFP Country Director has the authority to spend up to US\$200,000 for immediate response in new emergencies.



Logistics Service Package

- **Logistics service packages:** These are turnkey interventions. Eight generic packages have been developed: port operations, rail operations, road and airstrip repair, airhead operations, logistics base establishment, field communications, long-haul trucking and logistics advisory services.

Equipment

- **Strategic logistics stock initiatives:** These include a pre-positioned stock in Nairobi, an inventory of logistics equipment deployed in the field and small pre-positioned stocks in Pisa.
- **Blanket purchase agreements:** These agreements cover suppliers of key equipment including essentials, such as vehicles, communications equipment, computers, generators, pallets, tarpaulin and storage tents.

Human Resources:

- There is a growing emphasis on Human Resource Stand-by Arrangements within WFP and the United Nations system, with donor agencies, and with the military and civil defence:
- Stand-by arrangements include the Swiss Disaster Relief, Danish Refugee Council, Danish Trust Fund, Norwegian Refugee Council and Swedish Rescue Service Agency. In addition, WFP has a joint rapid response facility with United Nations Volunteers, (UNV), which is able to provide a variety of qualified personnel within very short notice.
- Integration of military and civil defence (M/CD) assets in emergency operations. Four applications are envisaged:
 - i) Stand-by capacities;
 - ii) Service packages;
 - iii) Capacity-building of WFP staff and operations; and
 - iv) Filling gaps in staff and equipment during a complex emergency.