

Provisional Agenda Item 4

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**REVIEW OF INTERNATIONAL MECHANISMS FOR DISASTER
RELIEF, REHABILITATION AND RECONSTRUCTION**

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REHABILITATION AND RECONSTRUCTION***

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* Prepared by the Commonwealth Secretariat with assistance from Ms Mehreen Samee, Consultant.

EXECUTIVE SUMMARY

A large number of countries, in all regions of the Commonwealth, are vulnerable to natural disasters. In terms of world rankings, 9 of the 10 most disaster-prone developing countries are members of the Commonwealth.

(ii) In addition to causing deaths and human misery, natural disasters have played havoc with the economies of Commonwealth countries. In some instances the damage caused by such disasters has been as high as 7 per cent of a country's Gross Domestic Product. A major consequence of the increasing frequency of high-cost natural disasters has been increased premiums for hazard risk insurance. In some regions of the Commonwealth, the reinsurance industry has withdrawn business, making it difficult for firms and home-owners to obtain insurance cover.

(iii) Since the shrinking volume of official development assistance is putting pressure on emergency and reconstruction aid budgets, and the public sector cannot continue to sustain a disproportionate burden of post-disaster rehabilitation and reconstruction, there is a growing need for public-private partnerships that help to spread risks and increase insurance coverage.

(iv) There are already a number of international mechanisms that are providing disaster assistance. In addition to the bilateral assistance being provided by both Commonwealth and non-Commonwealth donors, several major multilateral and regional institutions are important sources of assistance. Some (e.g. the UN system and bilateral donors) are concentrating more on immediate post-disaster relief and others (e.g. the World Bank and regional development banks) are focusing more on post-disaster rehabilitation and reconstruction. Several institutions are also providing assistance for disaster preparedness and mitigation programmes.

(v) Since many Commonwealth countries affected by natural disasters are already obtaining assistance from these sources, it is arguable whether the creation of a separate Commonwealth fund for disaster assistance would add value to existing mechanisms. Related questions for consideration are whether the Commonwealth has any comparative advantage which would justify such a venture and how resources would be mobilised for a Commonwealth fund. There is also a danger that the creation of a new mechanism for disaster assistance would increase administrative costs and dissipate valuable resources, rather than increase and improve disaster assistance for Commonwealth countries.

(vi) Instead of creating a Commonwealth mechanism, it would be better to focus efforts, with an emphasis on greater private sector involvement, on improving the effectiveness of existing mechanisms for disaster assistance. In particular, it is important to:

(a) ***Promote arrangements for public-private partnership in risk-sharing:*** This will help to increase insurance coverage in countries prone to natural disasters, thereby facilitating the task of reconstruction and rehabilitation and easing the burden on governments and donor agencies.

(b) ***Strengthen disaster preparedness and mitigation:*** This is vital in order to reduce vulnerability and contain the impacts of natural disasters when they do occur.

Programmes for technical assistance, training and institutional strengthening can improve disaster planning and management in countries with severe capacity constraints.

(c) ***Improve the speed and effectiveness of response to natural disasters:*** At a general level, it is important to ensure that response strategies are supportive of affected countries' long-term development goals. The specific areas where response can be improved include: increasing the comprehensiveness of damage assessments on the basis of standardised guidelines and procedures; integrating mitigation aspects in all post-disaster rehabilitation and reconstruction projects (in order to make infrastructure less vulnerable to future disasters); and simplifying procedures and criteria in order to speed up the disbursement of relief as well as assistance for longer-term reconstruction projects.

(d) ***Improve international co-ordination:*** It is important for the international community to continue to strive for better co-ordination (and reduce duplication of effort) among the various bilateral, multilateral and non-governmental organisations involved in providing disaster assistance. The procedure for the UN's Inter-Agency Appeals could be simplified to accelerate the co-ordination and mobilisation of disaster relief. The development of codes of conduct which clarify the roles and responsibilities of different parties (external and internal) involved in relief and rehabilitation efforts will also help to improve co-ordination and the effectiveness of relief operations on the ground.

Introduction

The 1998 Commonwealth Senior Officials Meeting in London, *inter alia*, expressed concern at the lack of effective international mechanisms for dealing with post-disaster rehabilitation and reconstruction. Senior Officials considered a proposal by Bangladesh for the establishment of a Commonwealth Disaster Relief Fund and requested the Secretariat to examine the existing disaster relief mechanisms in the wider international community, and to report to Commonwealth Finance Ministers, Environment Ministers and Heads of Government in 1999. In accordance with this mandate, this paper has been prepared for the consideration of the CCGE under Item 4 of the Provisional Agenda.

2. The paper consists of three sections. The first focuses on the incidence and impacts of natural disasters in Commonwealth countries.¹ The second provides an overview of existing mechanisms (bilateral, multilateral and regional) for post-disaster relief, rehabilitation and reconstruction. It also attempts to identify gaps and weaknesses in these mechanisms. The third addresses the issue of establishing a separate Commonwealth fund for disaster assistance and concludes with recommendations for the consideration of the CCGE.

I Natural Disasters in Commonwealth Countries

3. The number of reported disasters worldwide has increased exponentially during the past three decades. A comparison by Munich Re (the world's largest reinsurance company) of the period 1988-97 with the period 1960-69 shows that there has been a threefold increase in the number of natural catastrophes. Their costs have also escalated by as much as a factor of eight, while insured losses are 14 times as high. Cyclones, floods, landslides, droughts and forest fires, which comprised 85 per cent of all disasters, were responsible for 74 per cent of fatalities, and accounted for 72 per cent of economic losses and 81 per cent of insured losses. Some of this increase can be attributed to better reporting and coverage of disasters worldwide. However, the concentration of populations and high-value infrastructure in cities and coastal areas, which are often high-risk areas, has been a major cause of the greater incidence of disasters.

4. In the last ten years alone, natural disasters worldwide have caused economic losses worth approximately \$700 billion.² These losses were spread evenly among the three most prevalent disasters: floods, cyclones and earthquakes each accounted for approximately one-third of the total loss burden. Insured losses (worldwide) formed approximately a fifth of total losses. Cyclones and storms were responsible for 67 per cent of insured losses, earthquakes

¹ For the purposes of this paper, natural disasters encompass 'rapid onset disasters' (including floods, cyclones, storms, tornadoes, landslides, earthquakes, tsunamis and volcanic eruptions) as well as 'slow onset disasters' (e.g. drought). Although conflict and civil strife are also regarded as disasters, they do not fall within the purview of the paper. The paper also recognizes that the boundaries between natural and human-made disasters have become increasingly blurred - for instance, natural events may have triggers other than climatic or geophysical phenomena, e.g. flashfloods have been linked to unsustainable rates of deforestation, and desertification to overgrazing of land.

² The estimation of the precise economic costs of disasters is fraught with difficulties. Estimating the social and environmental costs (loss of lives and injuries and the ensuing loss of income, strains on health-care systems, destruction of important marine and terrestrial habitats) is even more difficult. Most estimates manage to capture only direct costs (damage to property, infrastructure, capital equipment, and income and production costs). But even these are grossly under-estimated since they do not cover losses in the informal sector, which is a major source of employment and income in developing countries.

for 19 per cent, floods for 8 per cent and other disasters for 6 per cent. Cyclones constituted the majority of insured losses (\$90 billion) because they have a high insurance density. In contrast, floods which are prevalent and as costly, caused insurance losses worth only \$10 billion because of the low insurance density.

5. A review of disasters between 1989 and 1998 in Commonwealth countries (see Table 1 in the Annex) reveals a pattern that follows the global trend. Floods and cyclones were the most prevalent disasters, accounting for 35 per cent and 26 per cent, respectively, of all natural hazards. The more populous countries (e.g. Bangladesh and India) experienced the greatest number of disaster events. Floods are a major hazard in South Asia and some African countries, whereas small island states in the Caribbean and South Pacific regions are most prone to cyclones. Of the large *non-island* states, Bangladesh is the only country where cyclones cause almost half of all natural disasters.

6. A total of 249,033 deaths (almost two-thirds of disaster-related deaths worldwide) occurred in Commonwealth countries (see Table 2 in the Annex). An additional 630 million people were made homeless. The Commonwealth countries (for whom data are available) suffering the highest economic costs (in absolute terms) as a result of natural disasters were India (\$21 billion), Australia (\$7 billion), Bangladesh (\$6 billion), Canada (\$2 billion), Jamaica (\$1 billion) and Pakistan (\$1 billion). An index of vulnerability to natural disasters, which was computed as a part of a composite Vulnerability Index for 110 developing countries developed by the Commonwealth Secretariat, suggests that a large number of countries in all regions of the Commonwealth are vulnerable to natural disasters. In terms of world rankings, 9 out of the 10 most disaster-prone countries are members of the Commonwealth.

7. Natural disasters have played havoc with the economies of Commonwealth developing countries, especially those that do not have a diversified industrial or export base. The 1995 hurricane season in the Caribbean region destroyed 90 per cent of the banana crop (the main export crop) in Dominica. Its GDP growth in the year before the cyclone was 8 per cent but fell to 2 per cent the following year. In 1988, Jamaica suffered direct losses worth \$956 million due to Hurricane Gilbert. Its GDP growth, which was 8 per cent before the disaster, fell to 3 per cent after the disaster. St Lucia's growth rate which was 3 per cent before Hurricane Debbie in 1994, shrank to -0.5 per cent the following year.

8. In the South Pacific region, Cyclone Kina inflicted losses amounting to \$109 million (7 per cent of GDP) in 1995. Cyclone Val (1991) caused damages in Samoa in excess of \$280 million (over 2 per cent of GDP). The 1994 Rabaul volcanic eruptions in Papua New Guinea caused losses of \$238 million, approximately 5 per cent of GDP. Bangladesh, despite its relatively larger and more diversified economy, suffered losses amounting to \$4 billion due to the extensive floods in 1998. Flash floods in South Africa in 1995 caused losses of \$10 million and floods in Kenya in early 1998 caused damage amounting to \$33 million. (All the above estimates do not include the social and environmental costs, nor the opportunity cost of the resources diverted from development projects.)

9. A major consequence of high-cost natural disasters has been the increased premiums for hazard risk insurance³. Perversely, premiums for a country can rise even in the face of

³ Insurance is available for earthquakes and cyclones but not for floods and volcanic eruptions. It does not cover

unchanged risks if countries in close proximity to it sustain high insurance losses. For example, insurance premiums in Barbados tripled between 1990 and 1992 (following Hurricane Andrew in Florida) even though it experienced no hurricanes in this period. Some insurance and reinsurance companies also withdrew business from the Caribbean, following Hurricane Andrew. As a result, huge financial losses were sustained with no recourse to insurance cover when Hurricane George hit the region in October 1998.

10. Since the shrinking volume of official development assistance (ODA) is putting pressure on emergency aid budgets, and the public sector in developing countries cannot sustain a disproportionate burden of post-disaster reconstruction, there is a clear case for the private sector to share in the risk burden posed by natural hazards. However, given the private insurance sector's reluctance to operate in high-risk regions, there is a need to devise new private-public partnerships which could help to spread risks more widely and increase insurance coverage.

II Overview of Mechanisms for Disaster Relief, Reconstruction and Rehabilitation

11. International assistance for countries affected by natural disasters is primarily funded by members of the Organisation for Economic Co-operation and Development (OECD). Funds are either disbursed as direct bilateral aid to the affected countries, or channeled through the UN system, the European Union and other organisations.⁴ Disaster assistance is also provided by: multilateral agencies, such as the World Bank and the International Monetary Fund (IMF); regional mechanisms like the regional development banks; and non-governmental organisations (e.g. the International Red Cross). This section provides an overview of the existing mechanisms for the provision of assistance by bilateral agencies, multilateral institutions and regional organisations. Due to constraints posed by time and unavailability of information, it has not been possible to undertake a comprehensive review covering all sources of assistance, including NGOs. However, it is hoped that the information provided nonetheless provides a representative picture of the type of assistance that is available.

Bilateral Donors

12. The members of the OECD provide the bulk of resources for disaster relief. Official aid is also provided by some Arab donor agencies and other countries such as Thailand, Malaysia Singapore and Taiwan. The declining volume of (ODA) in recent years (it fell by 17 per cent in the period 1992-96) appears to have affected the volume of disaster-related assistance. Although at \$2 billion, bilateral disaster relief still remains more than double its 1990 level of \$809 million, it has declined after reaching a peak of \$3.5 billion in 1994. At its peak, such assistance comprised about 6 per cent of total ODA from OECD countries. This ratio fell to 4.5 per cent in 1997.

13. Table 4 in the Annex shows the resources provided by the OECD countries for non-food emergency aid. In volume terms, the United States (US) is the largest bilateral donor (in 1996, it provided \$585 million in non-food emergency relief) followed by the Netherlands, Germany and Sweden. In terms of emergency aid provided as a percentage of total bilateral

crop damage nor damage to social infrastructure.

⁴ Where the donor country has discretion over the use of UN funds, it is counted as bilateral aid.

ODA, Norway, Sweden, and Austria are the major contributors. In 1996-97, on average, emergency aid accounted for about one-fifth of their total ODA (see Table 5 in the Annex). The ratios of emergency aid to total ODA of Commonwealth donors were as follows: United Kingdom (13 per cent), Canada (10 per cent), New Zealand (5.5 per cent) and Australia (1.7 per cent). The disaster assistance policies of the major Commonwealth donors are reviewed below.⁵

United Kingdom

14. Disaster assistance is channeled by the Emergency Aid Department of the Department for International Development (DFID). The DFID's assistance policy is designed to "save lives and relieve suffering, hasten recovery, rebuild livelihoods and communities, and reduce risk and vulnerability to future crises". The Emergency Aid Department provides funds for both relief and rehabilitation. Mitigation and preparedness strategies are addressed in support for longer-term development plans. Longer-term reconstruction work is not considered to be an area where DFID has comparative advantage, and where such work is supported, it is undertaken in co-operation with multilateral institutions and other donors agencies. The DFID implements its relief programmes through international and local NGOs. Its experience has shown that early response by local agencies is instrumental in saving the most number of lives. Thus, DFID gives priority to building capacity for disaster response within local communities, working in partnership with well-established organizations that have local knowledge and expertise.

15. The Department is also engaged in strengthening international organizations such as the UN and the International Federation of Red Cross and Red Crescent Societies (IFRC) and International Committee of Red Cross and Red Crescent Societies (ICRC). It also encourages the World Bank and the UNDP to incorporate disaster management and risk reduction strategies in their projects. It has provided upward of £ 3 million for encouraging mitigation programmes in South Asia, the South Pacific and Southern Africa.

16. The Emergency Aid Department can respond within hours to rapid onset disasters. The funds it earmarks for dealing with such emergencies are separate from country programme assistance. Response to slow onset disasters is managed by the relevant country department or overseas office and assistance is provided in the context of DFID's aid strategy for the country.

17. In 1997-98, 46 per cent of UK emergency aid was channeled through bilateral mechanisms, 44 per cent through the European Commission, and 10 per cent through the UN. Disaster relief comprised 72 per cent of bilateral emergency aid. Thirty four per cent of total bilateral emergency aid went to Africa, 14 per cent to Asia, 32 per cent to Europe, 19 per cent to Latin America and the Caribbean, and 1 per cent to the Pacific region. About £19 million (21 per cent) of bilateral emergency aid was provided to Commonwealth countries. Since 1993/94, the UK has provided £139 million in emergency aid to Commonwealth countries. The average share of Commonwealth countries in emergency aid since 1993/94 has been approximately 19 per cent.

⁵ Although it is a significant donor of disaster relief, Canada has not been included because its response to a request for information had not yet been received by the Secretariat at the time this paper was finalised.

Australia

18. Response to emergencies is managed by Emergency Management Australia (EMA), located in the Ministry of Defence, under the direction of AusAID. Australia's response to emergencies is determined by: the scale and nature of humanitarian crises; the likely impact of the emergency on long-term development efforts; local capacity to cope with disasters; Australia's capacity and comparative advantage in providing assistance; response from other donors; and the level of community involvement. The highest priority is given to emergency situations in the Asia-Pacific region, especially those countries where Australia has an ongoing bilateral assistance programme. Thus, while Australia contributed A\$1 million in relief for countries affected by Hurricane Mitch, it provided A\$34 million for disaster relief following the drought and tsunami disasters in Papua New Guinea. Emergency funding is additional to the provisions for aid made under bilateral country programmes.

19. Emergency assistance is provided to countries in the immediate vicinity of Australia through the AUSASSISTPLAN, which is Australia's overseas disaster management plan. The major recipients of assistance under this plan are countries in the South Pacific region. Aid is channeled either directly or through the UN and NGOs such as CARE, IFRC, Save the Children, and CARITAS. AusAID has provided approximately A\$30 million in emergency assistance to Commonwealth countries since 1994. This is approximately about 9 per cent of the total emergency assistance provided by Australia during this period.

New Zealand

20. New Zealand provides assistance from the New Zealand Official Development Assistance's (NZODA) *Emergency and Disaster Relief* (EMDR) allocation. A total of NZ\$5 million is allocated annually to meet demands arising from emergencies. These funds are primarily used for emergency relief operations, but may on occasion be utilised for rehabilitation purposes. The New Zealand Defence Forces may also contribute, if required, to relief efforts. In some cases, longer-term reconstruction is funded under bilateral assistance programmes, though this is relatively infrequent. New Zealand contributes to the core funds of multilateral humanitarian relief organizations such as international NGOs and the UN agencies. In addition to relief and rehabilitation operations, NZODA also funds training and preparedness programmes, and supports the South Pacific Disaster Reduction Programme.

21. The EMDR mainly focuses its activities in the South Pacific region where the incidence of natural disasters is high. However, in recent years, EMDR funds have been used to support emergency operations in Asia and Africa. In general, however, New Zealand's response to disasters outside the region involves contributions to appeals from multilateral agencies. New Zealand is a party to FRANZ, a joint arrangement with France and Australia which facilitates a co-ordinated response to emergencies in the South Pacific region. Co-operation extends to co-ordinated transportation for relief operations and collaborative financial response for large-scale reconstruction. The partnership is committed to strengthening the Pacific region's disaster preparedness. It works in collaboration with regional organizations and NGOs.

22. Between 1994 and 1998, New Zealand spent approximately NZ\$22 million on emergency aid. There was considerable variation in the proportions of emergency aid allocated for natural disasters and relief for conflict situations. In 1997, 48 per cent of EMDR

funds were allocated to natural disaster relief and preparedness compared to 36 per cent in 1996. In 1997, 20 per cent of EMDR funds were contributed to Commonwealth countries following natural disasters. All these funds went to Pacific island countries affected by cyclones. In 1999, New Zealand has thus far made a provision of NZ\$150,000 for natural disaster assistance for Commonwealth countries.

The Multilateral Institutions

World Bank

23. Since 1980, the World Bank has financed 199 disaster-related projects worth \$14 billion, of which \$7.4 billion was for 101 reconstruction projects, and \$6.4 billion for mitigation projects.⁶ More than two-thirds of these projects (worth \$5.1 billion) were funded through Emergency Recovery Loans (ERLs). The ERLs are used to fund post-disaster reconstruction of economic and social infrastructure and are generally reallocated from a country's existing lending programme. Slow onset disasters and recurring disasters are addressed through regular investment loans. Approval of such loans depends upon expected economic benefits of the investment, its impact on reducing vulnerability to similar future disasters, and its impact on economic priorities and investment programmes within the country. These loans have an implementation period of 3 years and do not include conditionality linked to macro-economic policies. Up to 20 per cent of a loan may be used to fund retroactive expenditures.

24. Most of the Bank's reconstruction projects were undertaken in response to weather-related natural disasters (floods, storms) and incorporated the improvement of communication and early warning systems. Although the frequency and intensity of disasters has increased in recent years, the Bank's reconstruction lending has remained more or less constant since 1980⁷. Evaluations of reconstruction projects show that project effectiveness depends on speedy response, inclusion of mitigation measures, flexible procurement arrangements, and community involvement. In recent years, there has been greater emphasis on mitigation projects. Since 1990, 55 mitigation projects have been approved, concentrated in 4 countries – China, India, Bangladesh and Brazil – which account for 40 per cent of the total mitigation portfolio.

25. In July 1998, the Bank established the *Disaster Management Facility* (DMF) in order to provide a more strategic and rapid response to disasters and to integrate disaster mitigation in all its activities. The Facility will be used to provide training in areas of disaster mitigation and response and support policy and institutional reforms for improving risk management and reducing vulnerability. It will also focus on the establishment of public-private funds for insurance and re-insurance and preparation of country assistance strategies. The Bank is also reviewing its natural disaster lending portfolio and emergency assistance policy.

26. The World Bank has developed a proposal for a public-private insurance fund for the Caribbean. This model, if successful, could be replicated in other countries/regions. The

⁶ This figure does not include assistance provided to Central America and the Caribbean following Hurricanes George and Mitch.

⁷ This may indicate that borrowers are seeking reconstruction loans from other sources.

proposal envisages the setting up of a "central catastrophe insurance pool" with contributions from the domestic insurance industry (from insurance premiums), governments, and bilateral donors. The fund would be managed by the domestic insurance industry. To further share risks, the fund coverage would be reinsured up to a specified loss limit. This would transfer part of the risks to the international market. Initially, multilateral agencies could also provide member governments with 'soft' contingency credit facilities to maintain the fund's liquidity if large losses are sustained. This credit would be re-paid from future premiums paid into the fund. This support facility could be transferred to local financial markets in the long-term, once adequate reserves are built up. In return for the concessionary finance from multilateral agencies, governments could charge a small levy on the proceeds coming into the pool and set up a separate trust fund which would provide insurance cover to groups who cannot access insurance in the open market. This would make possible, for example, crop insurance for small farmers and home-insurance for the low-income housing sector.

The United Nations

27. The United Nations system provides emergency relief but it is not equipped to deal with post-disaster rehabilitation and reconstruction. Although the funds at its disposal to finance emergency relief are limited, it has developed an important mechanism for mobilising funds from donor countries. The UN's response to disasters can be quite complex since a number of UN agencies (UNHCR, World Food Programme, UNICEF and UNDP) are involved in relief operations. The primary responsibility for co-ordinating the mobilisation of emergency aid lies with the UN's Office for the Co-ordination of Humanitarian Assistance (OCHA), which was created in 1998. Its mandate covers relief for natural and technological disasters as well as complex humanitarian emergencies. The OCHA is the successor of the UN Department of Humanitarian Affairs (DHA), which replaced the UN Disaster Reduction Organization (UNDRO) in 1992. An emergency fund and an Inter-Agency Standing Committee were introduced at this time.⁸

28. Relief for natural disasters is funded from a Central Emergency Revolving Fund (CERF) and through the appeals process. The CERF is a revolving fund of \$50,000 set up by donor governments. Since 1992, the DHA/OCHA provided grants totaling \$4 million. The use of this facility has been limited because the amount borrowed must be replenished within a maximum period of one year. The bulk of resources is mobilized through appeals. These could be appeals launched by OCHA in response to requests by stricken governments, or as is more generally the case, through an inter-agency appeal. The latter is prepared through a collaborative process between appealing agencies (UN and NGOs), field personnel and headquarters. The appeals document provides as complete a picture as possible of the post-disaster impact and requirements for assistance. In the period 1992-98, the DHA/OCHA responded to 468 disasters and raised \$1.9 billion in cash and in-kind contributions, and channeled \$48 million directly to affected countries.⁹ Contributions by OCHA are used to cover priority relief needs identified by the UN Disasters Management Team (UN-DMT) in close consultation with the affected governments.

⁸ The Inter-Agency Standing Committee ensures co-ordination between UN agencies and NGOs for fund-raising for complex emergencies, and implementation of relief programmes.

⁹ Of the \$1.9 billion raised, \$1 billion was raised by OCHA in 1998 and \$9 million was raised by DHA in 1992 - 97.

29. The OCHA also houses the Secretariat for the International Decade for Natural Disaster Reduction (IDNDR). The Decade was launched by the UN in 1990 to make people and governments aware of how vulnerability to natural disasters can be reduced through better preparedness and mitigation strategies. The IDNDR works through National Committees and Focal Points in 138 countries.

International Monetary Fund (IMF)

30. The IMF's mandate to provide finance to countries that are experiencing balance of payments problems restricts its ability to fund relief/rehabilitation efforts in the aftermath of natural disasters. However, since a country's balance of payments may be temporarily disrupted by natural disasters, the Fund does provide some emergency assistance which is usually limited to 25 per cent of a member's quota. Emergency assistance does not require phasing of payments and repayments are due within 3 to 5 years of the advancement of the loan. However, this assistance is subject to a "member's readiness to describe the general corrective policies that it proposes to follow." Since 1980, this facility has been used 16 times, with Commonwealth countries requesting funds in eight of these instances. The total assistance from the Fund amounted to SDR 874 million during this period. Countries whose export earnings suffer on account of natural hazards can also draw upon the Fund's *Compensatory and Contingency Financing Facility (CCFF)*. Since 1962, there have been only 9 cases of members using this facility and no requests have been made since 1987. The need to conform to IMF conditionality may be one reason why the Facility has not been drawn upon more frequently.

Regional Organisations

Asian Development Bank (ADB)

31. The ADB does not provide immediate post-disaster humanitarian assistance since it considers that other donors have a greater comparative advantage in this area. However, it does finance mitigation, rehabilitation and reconstruction projects (to date more than \$2 billion has been provided for these projects). Since the late 1980s, it has established two new rehabilitation assistance lending facilities to enable a speedier response to emergency situations. The Facility for *Rehabilitation Assistance to Small Developing Member Countries Affected by Natural Disasters* was created in 1987 and is intended for rehabilitation rather than longer-term reconstruction projects.¹⁰ The ceiling on individual loans, originally set at \$0.5 million, was raised to \$2 million in 1997. Projects financed from this Facility are required to be completed within a year and are confined to infrastructure repair and replacement of equipment in the water, sanitation, power, transport, communication, health, education, and basic production sectors. The second Facility for *Rehabilitation Assistance After Disasters* was created in 1989. There is no limit on the size of its loans and projects can be implemented within three years of taking a loan. Projects can be used to improve infrastructure design and for disaster mitigation measures. The Facility may also be used for disasters resulting from conflicts and technological mishaps.

¹⁰ The Small Developing Member Countries are the small island member states of the South Pacific region and the Maldives.

32. In theory, rehabilitation assistance loans can be made from both Ordinary Capital Resources and the Asian Development Fund (the ADF's concessional window), but in practice only the ADF has been drawn upon. Since 1987, rehabilitation loans worth \$3.6 million have been approved for small developing member states under the first Facility. Twenty loans totaling \$997 million have been extended to developing countries under the second. A further 14 projects, dating from 1992, which incorporated disaster mitigation measures were also funded by ADB. These projects (worth \$1 billion) were primarily large engineering projects relating to flood control. The ADB also financed at least 31 disaster-related technical assistance loans. Among Commonwealth countries, Bangladesh and Pakistan have been the largest recipients of the ADB's disaster-related assistance. In terms of regional distribution, South Asia received 62.5 per cent, South-East Asia 35.7 per cent, and the South Pacific 1.4 per cent of ADB assistance. Floods accounted for half, and earthquakes and civil unrest for 30 per cent, of rehabilitation loans.

33. A recent evaluation of the ADB's disaster assistance has revealed that, on average, loans are processed in about 5 months dating from the occurrence of a disaster. Delays have resulted from problems in damage assessment and transmission of information on the scale of damage. Moreover, projects, on average, have taken almost twice as long to complete as originally envisaged. Delays have occurred because of weak institutional capacity and lack of technical and managerial skills in implementing agencies, delays in procurement, confusion about procedures for release of funds, and delays in the appointment of consultants.

Caribbean Development Bank (CDB)

34. To date, the CDB has provided a total of \$53 million for post-disaster rehabilitation and reconstruction, which have been the primary focus of its assistance. It has recently established a Caribbean Disaster Emergency Relief Fund, with contributions from member states, to provide greater assistance for disaster relief, mitigation and preparedness projects. The Fund provides grants of up to \$100,000 for emergency relief following a disaster, channeled through the Caribbean Disaster and Emergency Relief Authority (CDERA). Further financial assistance, up to \$500,000 may be provided in concessionary loans for rehabilitation. Under these new arrangements the Bank has so far funded post-disaster relief and rehabilitation in Antigua and Barbuda and St Kitts and Nevis, and a disaster mitigation programme in St Lucia.

35. The CDB also operates a *Retroactive Finance Facility* which provides funds for rehabilitation works undertaken or goods supplied in the transition period between immediate response and the rehabilitation programme. Under this Facility, member states can get funds up to 30 per cent of the size of the rehabilitation loan to finance eligible disaster rehabilitation expenditures already incurred. The CDB is also working with other international financial institutions (notably, the World Bank, Inter-American Development Bank and the Pan-American Health Organization) to improve the insurance industry in the region. In collaboration with these institutions, the CDB will establish a regional catastrophe emergency pool and a re-insurance pool to expand insurance cover for natural catastrophes. The Bank is also strengthening its capacity and operational procedures to expedite the disbursement of loans. The CDB's support for disaster preparedness and mitigation covers projects to prepare, enforce and monitor standards and codes for construction and maintenance; strengthening the capacity of insurance supervisory bodies; preparation of hazard maps and disaster contingency plans; and retrofitting of public buildings and economic and social infrastructure.

African Development Bank (AfDB)

36. Since 1979, the AfDB has provided emergency assistance to member countries specifically directed at repairing infrastructure and public utilities damaged by both natural disasters and conflicts. However, in the absence of a coherent frame-work to address emergency requests, a number of its responses suffered from inadequacies. These primarily concerned delays in the Bank's procedures for mobilising and making funds available to member countries. To address these shortcomings, the Bank adopted policy guidelines in December 1998 for the Bank's short-term relief operations and support for longer-term reconstruction and rehabilitation projects.

37. A *Special Relief Fund* has been created to provide grants to countries hit by natural and technological disasters as well as complex emergencies. Grants are provided for short-term operations, lasting from a few weeks to a few months, and cannot exceed of \$500,000 for any single operation in a given country. They are provided to members irrespective of their arrears outstanding with the Bank. Since the Bank does not consider it has a comparative advantage in the design and implementation of relief operations, the grants are channeled through agencies specialising in this field such as UN agencies, government agencies or NGOs. The Bank has also made provisions for rehabilitation and reconstruction projects of longer duration. Finance will be provided for repair and reconstruction of damaged infrastructure and equipment and to assist in the revival of economic activities and social services. Projects for improving disaster preparedness will also be supported. Assistance for reconstruction and rehabilitation projects will be provided under the Bank's regular loan programme. As such, standard operational policies will apply to these loans, such as conditionality, and country eligibility for resources from the African Development Bank and African Development Fund (the Bank's concessional window). Since 1979, the AfDB has provided 8 loans totaling \$94.2 million for rehabilitation, reconstruction and preparedness for natural disasters, of which five were for Commonwealth countries.

Inter-American Development Bank (IADB)

38. The IADB provides both grants for relief operations and loans for rehabilitation and reconstruction purposes. Grants totaling \$150,000 can be approved by the field offices in member countries. Between 1980 and 1995 the Bank provided 46 grants totaling \$6.4 million to 20 countries, and 22 loans worth \$1.75 billion to 11 countries. Following Hurricane Mitch, in addition to providing grants to affected countries, the IADB also set up a \$12 million fund to support the Central American micro-enterprise financing industry which suffered heavy losses due to the hurricane's devastating impact on micro-enterprises.

39. The Bank set up a new *Emergency Reconstruction Facility* in December 1998 in order to permit swifter responses to restore critical services after disasters. Requests made under this Facility are expected to be processed for approval on a fast-track (no more than 3-4 weeks), but on a case-by-case basis. The Facility can provide up to \$10 million from the Fund for Special Operations (a concessional window) and \$20 million from Ordinary Capital resources for a period of twelve months for a single disaster event. These funds may be utilised for building temporary housing and the restoration of basic social services e.g. water, sanitation, health, education. At present, with the consent of the Executive Board, the

President of the Bank can authorise up to an aggregate of \$65 million from Ordinary Capital and up to \$35 million from Special Operations to finance the operations of the Facility.

The European Commission

40. The European Commission's Humanitarian Office (ECHO), established in 1992, coordinates and administers the European Commission's policy on humanitarian aid. ECHO provides funds for relief from natural disasters and conflict situations, short-term rehabilitation and reconstruction work, aid to cope with large and sudden population movements and repatriation, and disaster prevention and preparedness. At the end of 1999, ECHO will undergo a comprehensive performance evaluation to determine whether its initial 7-year mandate should be renewed. While the Commission's total aid budget has remained more or less constant over time, the proportion of it spent on emergency assistance has increased (from 3.1 per cent in 1986 to 15.2 per cent in 1995).

41. In volume terms, the Commission is the world's largest emergency aid donor (EURO 517 million in 1998). Of this, EURO 98 million (17.6 per cent) was allocated to mitigation and relief for natural and human-made disasters. The proportion of ECHO's humanitarian aid allocated for these disasters increased by 61 per cent in 1994-98. In 1998, 31 per cent of the budget for natural disasters was allocated to floods, 25 per cent for cyclones, 7.5 per cent for earthquakes, and 4 per cent for drought. In 1997, ECHO provided EURO 11 million in relief and preparedness to Commonwealth countries. In 1998 it provided EURO 12.6 million to Commonwealth countries.

42. The Humanitarian Aid Committee of ECHO, which comprises representatives of member states, is responsible for approving emergency aid. ECHO is authorised to approve funds up to a maximum amount of ECU 10 million for action within six months. Emergency funds up to ECU 2 million can be released at the Commission's discretion. For funds ranging from ECU 2 to 10 million, the Commission must inform the Committee in writing within 48 hours of a decision to authorise their release. For longer-term projects which require funds in excess of ECU 10 million, the ECHO submits 'global plans' for the Committee's approval. These plans enable ECHO to develop longer-term country and region-wide strategies, allowing it to develop a more pro-active approach to disaster response.

43. ECHO implements its plans through partners in the field, even though the original expectation was that it would develop its own field capacity. It enters into contracts with implementing agencies by signing Framework Partnership Agreements (by end 1996, ECHO had signed agreements with 200 implementing partners, including UN agencies, ICRC organizations and NGOs). The largest proportion of funds is channeled through European NGOs, even though this requires greater ECHO staff input than would grants to UN agencies and the Red Cross. A 1998 evaluation of ECHO concluded that, on average, it takes 1-4 months to sign a contract even though occasionally ECHO has responded within 24 to 48 hours. Moreover, there are also delays in disbursing funds to partners. Initial advance payments take a minimum of six weeks while final payments take at least 3 to 4 months.

Weaknesses of Existing Mechanisms

44. Several recent evaluations have suggested that there are a number of weaknesses in existing international mechanisms for disaster relief, rehabilitation and reconstruction¹¹. These are discussed below.

Diversion of resources from development assistance

45. It is not clear whether in most cases the emergency relief provided to disaster-affected countries is incremental to the development assistance they receive. Furthermore, at times, loans for reconstruction and rehabilitation have been provided by reallocating development loans in a country's portfolio.

Excessive burden on the public sector

46. In the face of the increasing frequency and costs of natural disasters, the public sector cannot continue to sustain increasing levels of risk. With some exceptions, insufficient efforts are being made to spread risks more widely and involve the private sector in financing post-disaster rehabilitation and reconstruction.

Weaknesses in assessing the impact of natural disasters

47. Erroneous assessments can affect the nature of response to disasters and also weaken the case for investment in mitigation projects. Most loss estimates tend to be non-comprehensive because guidelines for assessing damage are rare, and methodologies for estimating certain impacts (e.g. damage to environmental assets that do not have market prices) are weak. Furthermore, since there is no standardised international procedure for assessing damage, estimates for the same disaster may vary. For example, for the 1998 floods in Bangladesh, the estimates of damage ranged from as much as \$4 billion to as low as \$2 million. Another problem arises when initial damage assessments undertaken quickly to facilitate a swift response, are not followed up with supplementary assessments which capture the indirect and secondary impacts of natural disasters which may take longer to manifest themselves.

Delays in response

48. Although the speed of response of international agencies and bilateral donors has improved considerably since the early 1980s, there are still reports of delays in the disbursement of funds for disaster relief. Improvements in the speed of response have been chiefly due to the establishment of early warning systems and increased airlift of supplies. The obstacles to timely relief operations now result mainly from bureaucratic delays and lengthy paperwork involved in operationalising the relief effort. For instance, the preparation

¹¹ These evaluations include:

Borton, J and Macrae, J, *Evaluation Synthesis of Emergency Aid*, Department for International Development, 1997

Mowjee, T, *The European Community Humanitarian Office (ECHO): 1992-1999 and Beyond*, 1998

L-Arriens, W.T. and Benson, C, *Post-Disaster Rehabilitation: The Experience of the Asian Development Bank*, 1999

and launch of the inter-agency appeals process reportedly delayed the response to the drought in Southern Africa in 1992 by 6 to 8 weeks. Similarly, delays at ECHO in processing project proposals submitted by partner agencies have been reported with consequent delays in relief operations. Cumbersome paperwork is reported to have delayed the response of some donors to the 1991 cyclones in Bangladesh. In the case of post-disaster rehabilitation and reconstruction, delays have occurred in the processing of loan applications mainly because of inadequate information on the socio-economic impact of disasters and the nature of requirements for rehabilitation and reconstruction.

Inappropriate nature of response

49. There have been instances where an important component of disaster relief proved to be inappropriate to the needs of the affected population. For example, maize, which was the main food distributed to refugee populations during emergencies in Rwanda and Tanzania, was not part of their normal diet. Moreover, since it was provided as whole-grain instead of milled, it took long hours to cook (using scarce fuel resources) and could not be digested properly by children. Similarly, in Somalia, a specially formulated food product was responsible for deaths of malnourished adults. It was later withdrawn and modified with good results.

Inefficiency of distribution mechanisms

50. In some relief operations, there have been difficulties in preventing the leakage of relief to non-target population groups. A number of programmes have also had difficulties in reaching the most vulnerable groups, e.g. women and children. Generally, the capacity of donor and implementing partners to monitor distribution efforts remains poor in many relief operations.

Weaknesses in planning and capacity constraints

51. A number of evaluation studies have noted the inability of donor organisations to identify and prioritise needs and devise strategies for interventions appropriate to the specific circumstances of disasters (which can vary). The absence of clear criteria and guidelines for resource allocation in emergencies, and for appraisal of project proposals and appeals, further complicates the situation. Furthermore, when the nature of disaster response has been largely shaped by views of implementing partners rather than donor agencies, interventions in the affected country have not always been consistent with the donor strategy for a given country. The ad-hoc nature of emergency response has also sometimes undermined long-term development objectives. Another set of problems relates to deficiencies in skills and institutional capacity within disaster-affected countries. These constraints have made it difficult to manage post-disaster relief as well as the process of rehabilitation and reconstruction.

Weak co-ordination

52. Co-ordination of disaster relief has been particularly difficult within the UN system. Until 1998, the roles and mandates of various UN organisations had never been clearly demarcated. Despite its central co-ordinating role, the UN Department for Humanitarian

Affairs (DHA) was reportedly unable to influence policy and programme management and bring coherence to the UN system's interventions. At a practical level, the logistics of co-ordination between the various UN agencies was also fraught with problems due to overlapping mandates and a plethora of parallel reporting structures and planning and decision-making procedures. The re-structuring effected in early 1998, which resulted in the DHA being replaced by the Office for the Co-ordination of Humanitarian Affairs, was intended to resolve these problems and improve co-ordination. It is too early to say whether these objectives have been achieved, and there is concern that 'enclave' co-ordination units may suffer from weaknesses.

53. Co-ordination of disaster relief between the official and un-official sectors has also sometimes been difficult because of lack of clarity in defining the roles of different parties involved in relief operations. In situations where a large number of NGOs have been involved, it has also been difficult for donor and government agencies to monitor the activities of these organisations. Nor have they been in a position to assess the suitability of different NGOs when selecting implementing partners.

Exclusion of disaster mitigation aspects in reconstruction projects

54. Some post-disaster projects have tended to focus purely on rehabilitation and restoration of damaged infrastructure without including mitigation components which would help to reduce damage from recurring disasters. Weaknesses in the maintenance of infrastructure that has been reconstructed have resulted in vulnerability to future disasters.

Social and environmental impacts of rehabilitation and reconstruction projects

55. In some instances, because such projects have been conceived merely as replacement of damaged infrastructure, there has been a tendency to implement them without assessment of their environmental impacts even though the post-disaster environmental profile of the site of such infrastructure may have changed. The social impacts of projects have also sometimes not been addressed sufficiently and they have been designed without the participation of local communities. Consequently, they have perversely increased the vulnerability of the most risk-prone communities.

III Conclusions and Recommendations

56. As the foregoing review suggests, there are already a number of international mechanisms that are providing disaster assistance. In addition to the bilateral assistance being provided by both Commonwealth and non-Commonwealth donors, several major multilateral and regional institutions are important sources of assistance. Some (e.g. the UN system and bilateral donors) are concentrating more on immediate post-disaster relief and others (e.g. the World Bank and regional development banks) are focusing more on post-disaster rehabilitation and reconstruction. Several institutions are also providing assistance for disaster preparedness and mitigation programmes.

57. Since many Commonwealth countries affected by natural disasters are already obtaining assistance from these sources, it is arguable whether the creation of a separate Commonwealth fund for disaster assistance would add value to existing mechanisms. Related questions for consideration are whether the Commonwealth has any comparative

advantage which would justify such a venture and how resources would be mobilised for a Commonwealth fund. There is also a danger that the creation of a new mechanism for disaster assistance would increase administrative costs and dissipate valuable resources, rather than increase and improve disaster assistance for Commonwealth countries.

58. Instead of creating a Commonwealth mechanism, it would be better to focus efforts, with an emphasis on greater private sector involvement, on improving the effectiveness of existing mechanisms for disaster assistance. In particular, it is important to:

- (i) ***Promote arrangements for public-private partnership in risk-sharing:*** This will help to increase insurance coverage in countries prone to natural disasters, thereby facilitating the task of reconstruction and rehabilitation and easing the burden on governments and donor agencies.
- (ii) ***Strengthen disaster preparedness and mitigation:*** In order to reduce vulnerability and contain the impacts of natural disasters when they do occur. Programmes for technical assistance, training and institutional strengthening can improve disaster planning and management in countries with severe capacity constraints.
- (iii) ***Improve the speed and effectiveness of response to natural disasters:*** At a general level, it is important to ensure that response strategies are supportive of affected countries' long-term development goals. The specific areas where response can be improved include: increasing the comprehensiveness of damage assessments on the basis of standardised guidelines and procedures; integrating mitigation aspects in all post-disaster rehabilitation and reconstruction projects (in order to make infrastructure less vulnerable to future disasters); and simplifying procedures and criteria in order to speed up the disbursement of relief as well as assistance for longer-term reconstruction projects.
- (iv) ***Improve international co-ordination:*** It is important for the international community to continue to strive for better co-ordination (and reduce duplication of effort) among the various bilateral, multilateral and non-governmental organisations involved in providing disaster assistance. The procedure for the UN's Inter-Agency Appeals could be simplified to accelerate the co-ordination and mobilisation of disaster relief. The development of codes of conduct which clarify the roles and responsibilities of different parties (external and internal) involved in relief and rehabilitation efforts will also help to improve co-ordination and the effectiveness of relief operations on the ground.

Annex

Table 1: Incidence of Disasters in Commonwealth Countries (1989-98)

Country	Earth-quake	Drought & Famine	Flood	Land-slide	High Winds	Volcanic Eruption	Other	Total
Antigua & Barbuda	0	0	0	0	2	0	0	2
Australia	1	2	7	0	15	0	3	28
Bahamas	0	0	0	0	1	0	0	1
Bangladesh	0	1	24	1	33	0	10	69
Belize	0	0	0	0	1	0	0	1
Botswana	0	1	2	0	0	0	1	4
Cameroon	0	1	1	0	0	0	8	10
Canada	0	0	4	0	2	0	6	12
Dominica	0	0	0	0	1	0	0	1
Fiji	0	1	0	0	3	0	0	4
Gambia	0	1	1	0	0	0	1	3
Ghana	0	0	3	0	0	0	2	5
Guyana	0	1	1	0	0	0	0	2
India	3	2	44	8	24	0	13	94
Jamaica	0	0	2	0	1	0	0	3
Kenya	0	3	2	0	1	0	3	9
Lesotho	0	2	0	0	0	0	0	2
Malawi	1	4	5	1	1	0	2	14
Malaysia	0	1	3	2	1	0	1	8
Maldives	0	0	0	0	1	0	0	1
Mauritius	0	0	0	0	2	0	0	2
Mozambique	0	3	2	1	2	0	6	14
Namibia	0	2	0	0	0	0	1	3
New Zealand	0	0	2	0	2	0	0	4
Nigeria	0	0	5	1	0	0	6	12
Pakistan	3	0	11	0	2	0	2	18
Papua New Guinea	1	2	2	2	2	2	3	14
Sierra Leone	0	0	0	0	0	0	4	4
Solomon Islands	0	0	0	0	1	0	0	1
South Africa	0	4	5	0	0	0	0	9
Sri Lanka	0	1	12	1	1	0	0	15
St Kitts & Nevis	0	0	0	0	3	0	0	3
Swaziland	0	3	0	0	0	0	2	5
Tanzania	0	5	10	0	1	0	4	20
Tonga	0	0	0	0	2	0	0	2
Uganda	2	2	3	0	0	0	5	12
United Kingdom	0	0	0	0	2	0	0	2
Vanuatu	0	0	0	1	4	0	0	5
Samoa	0	0	0	0	2	0	0	2
Zambia	0	2	2	0	0	0	4	8
Zimbabwe	0	3	0	0	0	0	4	7
TOTAL	11	47	153	18	113	2	91	435

Source: Centre for Research on the Epidemiology of Disasters (CRED), Catholic University of Louvain, Belgium

Note: Data for all Commonwealth countries were not available. Countries which did not register a disaster in the last 11 years are not included.

Table 2: Impact of Natural Disasters in Commonwealth Countries (1989-98)

Country	Events	Killed	Affected/homeless	Damage (US\$ million)
Antigua & Barbuda	2	4	70537	0.5
Australia	28	39	18256690	6,605.1
Bahamas	1	4	1700	250.0
Bangladesh	69	156366	223223083	5,605.2
Belize	1	0	60000	n/a
Botswana	4	211	132118	n/a
Cameroon	10	2285	618785	n/a
Canada	12	41	590800	1,724.9
Dominica	1	1	3000	3.4
Fiji	4	47	428955	100.0
Gambia	3	119	6356	n/a
Ghana	5	1410	718409	12.5
Guyana	2	0	797000	29.0
India	94	45291	285382256	20,507.8
Jamaica	3	57	1057396	1,257.8
Kenya	9	1991	12704700	11.8
Lesotho	2	0	501500	n/a
Malawi	14	1670	13723291	28.0
Malaysia	8	377	103033	n/a
Maldives	1	0	23849	n/a
Mauritius	2	3	5500	185.4
Mozambique	14	8082	7802118	n/a
Namibia	3	100	413200	n/a
New Zealand	4	10	9600	n/a
Nigeria	12	13156	1089249	66.5
Pakistan	18	5414	25046943	1,432.2
Papua New Guinea	14	2779	1587799	409.0
Sierra Leone	4	210	5389	n/a
Solomon Islands	1	4	107500	n/a
South Africa	9	427	4288000	n/a
Sri Lanka	15	498	4109110	285.3
St.Kitts & Nevis	3	6	13100	243.0
Swaziland	5	110	377228	1.7
Tanzania	20	3375	8108878	3.5
Tonga	2	1	6100	2.5
Uganda	12	688	963961	71.6
United Kingdom	2	5	3512000	600.0
Vanuatu	5	5	24100	6.0
Western Samoa	2	21	283000	397.4
Zambia	8	2472	5117725	220.7
Zimbabwe	7	1754	10159444	97.0
Total	435	249033	631433402	40,158.0

Source: Centre for Research on the Epidemeology of Disasters (CRED), Catholic University of Louvain, Belgium

Notes:

- 1) Data for all Commonwealth countries were not available. Countries which did not register a disaster in the last 11 years are not included.
- 2) The affected people may include some of the same people being enumerated over a number of years/disaster events.

Table 3: Vulnerability Ranking of Commonwealth Countries

Country	Vulnerability to Natural Disasters	World Disaster Vulnerability Ranking
Vanuatu	727.17	1
Bangladesh	539.16	2
Tonga	532.13	3
India	510.67	4
The Bahamas	491.28	5
Antigua and Barbuda	430.77	7
Botswana	418.03	8
Mozambique	361.13	9
The Gambia	339.16	10
Swaziland	304.31	11
Fiji	296.28	12
Dominica	261.97	13
Solomon Islands	213.71	18
Samoa	204.39	20
Malawi	192.82	22
Zimbabwe	188.18	23
Ghana	138.46	27
Jamaica	130.86	29
Sri Lanka	105.14	33
St. Lucia	92.88	37
Lesotho	86.89	39
Guyana	85.17	40
St. Vincent	74.80	42
Kenya	73.63	44
Zambia	67.03	45
Pakistan	57.32	48
Namibia	56.56	49
South Africa	56.38	50
Tanzania	43.27	54
Mauritius	29.29	60
Belize	28.19	62
Papua New Guinea	22.67	65
St. Kitts and Nevis	21.45	67
Uganda	17.02	69
Maldives	9.79	76
Cameroon	7.49	78
Nigeria	6.95	80
Malaysia	0.94	94
Barbados	0.46	99
Sierra Leone	0.35	100
Cyprus	0.13	103
Trinidad & Tobago	0.13	104
Singapore	0	106
Malta	0	107
Seychelles	0	108

Source: *Study on the Vulnerability of Developing and Island States: A Composite Index*, Commonwealth Secretariat

Notes:

- 1) The index was developed using CRED data for 1970-1996. It measures proneness of countries to natural disasters, defined as 'per cent of population affected by natural disasters cumulatively.' Index rankings for 45 Commonwealth countries for which data are available is presented in descending order of rank. World rankings indicate a country's rank among the 110 developing countries studied. Although the index provides an indication of the overall vulnerability of a country, it does not capture the distribution of vulnerability across communities and population groups within a country.
- 2) Data for all Commonwealth countries were not available.

Table 4: Non-food Emergency and Distress Relief (US\$ million)

Donor	1989	1990	1991	1992	1993	1994	1995	1996	1997
Australia	6.78	12.23	13.23	29.56	26.56	25.49	35.80	32.44	n/a
Austria	22.68	43.96	93.87	145.83	123.45	127.04	114.72	92.17	n/a
Belgium	1.59	4.59	5.71	13.18	19.05	14.02	15.75	23.99	n/a
Canada	29.69	45.76	85.14	78.86	273.96	228.45	164.72	174.38	n/a
Denmark	n/a	108.27	52.83	104.85	77.14	78.62	71.38	54.15	n/a
Finland	31.96	70.54	102.24	61.55	21.61	27.48	22.64	38.85	n/a
France	n/a	n/a	n/a	25.88	125.08	122.22	138.43	96.38	n/a
Germany	30.68	45.21	415.31	680.32	549.52	392.53	438.71	294.20	n/a
Ireland	1.33	2.09	2.89	2.10	5.15	8.53	8.34	16.34	n/a
Italy	84.15	104.06	456.33	137.39	341.69	105.40	87.89	96.68	n/a
Japan	19.61	26.46	20.48	14.93	40.37	31.08	60.08	71.94	n/a
Luxembourg	2.00	3.80	10.30	7.21	8.49	5.09	7.03	9.05	n/a
Netherlands	24.40	63.58	109.74	197.45	303.29	302.37	350.42	340.88	n/a
New Zealand	n/a	3.85	1.51	5.12	4.96	2.68	1.84	3.86	n/a
Norway	50.38	88.62	77.60	86.48	113.21	180.75	183.78	198.76	n/a
Portugal	n/a	n/a	0.11	0.11	8.35	3.70	3.52	5.56	n/a
Spain	1.20	5.00	8.42	6.43	7.74	5.04	19.53	12.91	n/a
Sweden	214.50	124.49	181.65	342.56	277.28	334.17	269.75	268.61	n/a
Switzerland	46.49	46.75	67.78	68.61	66.85	80.98	97.20	81.34	n/a
United Kingdom	31.72	37.95	116.48	56.83	187.27	260.52	181.76	194.73	n/a
United States	210.00	221.00	596.00	521.00	669.00	1,132.00	789.00	585.00	n/a
TOTAL	809.16	1,058.21	2,417.62	2,586.25	3,250.02	3468.17	3,062.29	2,692.23	2,150.00

Source: World Disasters Report, IFRC, 1998; Development Assistance Committee Report, OECD/DAC 1998

Table 5: Average Share of Emergency Aid in Total ODA (1996-97)

Country	1996-97
Norway	22.9
Sweden	21.0
Austria	18.8
Luxembourg	16.0
Ireland	14.4
Finland	14.3
United Kingdom	12.6
Switzerland	11.8
Italy	11.7
Canada	10.2
United States	9.6
Netherlands	9.5
Denmark	6.5
New Zealand	5.5
Germany	5.0
Belgium	3.6
Portugal	3.2
Spain	1.9
Australia	1.7
Japan	0.3
France	0.3

Source: Development Assistance Committee Reports, 1997-98, OECD