



1038

**International Decade for Natural Disaster Reduction
(IDNDR)**

**Third Session of Scientific and Technical Committee
Geneva, 16-20 March 1992**



**Report
of
THE ASIAN DISASTER PREPAREDNESS CENTER**

ROLE

1. The role of the ADPC is to assist countries of the Asian and Pacific regions in formulating their policies and strengthening their capabilities in all aspects of disaster management.

BACKGROUND

2. The ADPC was established in January 1986 by decision of the Board of Trustees of the Asian Institute of Technology (AIT) based upon a feasibility study conducted by the Institute and the Office of the United Nations Disaster Relief Coordinator (UNDRO). The study was funded by the World Meteorological Organization (WMO) and the United Nations Development Programme (UNDP).

LEGAL AND FINANCIAL STATUS

3. The ADPC is a non-profit making independent cost center within the overall constitutional and administrative framework of AIT but it establishes its own policies, programs and priorities. Legal authority is vested in the President of AIT. The Center is responsible for raising its own funds, has no access to AIT's central funds, and pays an overhead charge to AIT for rent and administrative services.

PROGRAMS

4. The Center's objectives are addressed through three broad categories of programs general, technical and information. Sub-categories are training, technical assistance and studies. Programs address all types of disaster, natural and man-made, and all aspects of the disaster spectrum from proactive prevention, mitigation and preparedness activities through to reactive response, rehabilitation and reconstruction. Emphasis is placed on the relationship between disasters, the environment and development. A significant feature of the ADPC's work is the proportion of time given to the direct support of in-country national programs throughout the region.

COLLABORATION

5. The ADPC has become an important focal point in Asia and the Pacific for the promotion of disaster management. It is committed to close collaboration not only with governmental and non-governmental organizations in Asian and Pacific countries but also with the worldwide disaster community, academia and the private sector. The Center's programs exemplify the objectives and goals of the International Decade for Natural Disaster Reduction (IDNDR).

PERFORMANCE TO DATE

Training

6. The most urgent need identified during the initial feasibility study was for disaster management training. To date the ADPC has organized 23 courses, workshops or seminars for 667 participants from 46 countries (see Annex A) viz:

- *Twelve Disaster Management Courses.* Held twice a year, the six-week courses are for senior to mid-level practising disaster managers. The curriculum is designed to improve participants' understanding of the theory and practice of disaster management with emphasis on practical skills. A typical course has 30 participants of various disciplines from about 15 countries, thus providing a rare opportunity for the exchange of experiences and ideas.
- *Improving Cyclone Warning Response and Mitigation.* After a very successful two-week pilot course in 1988 sponsored by the Australian International Development Assistance Bureau (AIDAB), the first in a series of eight courses sponsored by the European Community took place in 1990. Each year one course is conducted at AIT and two in selected countries in the Asian-Pacific region. To date country courses have been in the Philippines, Fiji (for South Pacific countries) and Bangladesh (for Bay of Bengal countries). Each

country is represented by a team of three people - a meteorologist, a disaster response manager and an engineer or planner responsible for measures for structural disaster mitigation. Further sub-regional or national courses will be conducted in Vietnam and the South Pacific.

- *Two four-week courses on Seismic Hazards Mitigation* with special emphasis on Earthquake Resistant Design and Construction were conducted in 1987 and 1989 for practising engineers and architects in the Philippines - one in Manila and one in Cebu. Although the majority of participants came from the Philippines, other countries in the region were also represented. The courses were sponsored respectively by USAID/OFDA and the ASEAN-CANADA Fund with contributions from UNESCO.
- *A two-week training course on Flood Loss Prevention, Mitigation and Management* was held at the Prince of Songkla University, Thailand in February/March 1991. It was sponsored by ASEAN-CANADA Fund.
- *A five-day Seminar on the Socio-Economic Aspects of Disasters* was conducted at AIT in 1989 in collaboration with the Disaster Research Center of the University of Delaware. It was sponsored by the US National Science Foundation.
- *Workshops for UN Organizations.* In 1987 the ADPC collaborated with the University of Wisconsin in organizing workshops at AIT for UNHCR and UNICEF officials.
- *A Regional Seminar on Disaster Mitigation* was conducted in 1990 for the Asian Development Bank at AIT for senior officials from countries in Asia and the Pacific.
- *A Disaster Management Round Table Meeting* in the Philippines in 1991, sponsored by the German Foundation for International Development, was provided with technical advice by ADPC.

Studies and Evaluations

7. The ADPC has conducted and published several post-disaster evaluations including:
 - *Typhoon Sisang in the Philippines in 1987.* The report of the ADPC's Senior Research Scientist recommended short and long-term mitigation measures.
 - *Drought in India.* The Government of India invited the ADPC Program Coordinator to visit the areas affected by the severe drought in 1987 and observe the very successful food scarcity relief operations.

- ***Nepal Earthquake in 1988.*** Through UNDP/UNDRO the Government of Nepal invited the ADPC's Senior Research Scientist to assess damage and advise on reconstruction. Many of his recommendations have since been incorporated into the reconstruction program as well as in the formulation of a national building code and seismic zone mapping.
- ***Needs Assessment Study for the Improvement of Early Warning Systems and Disaster Relief Coordination in Thailand.*** A study was conducted in 1990 at a request of the Royal Thai Government. Funding was provided by UNDP.
- ***Damage and Reconstruction Needs Assessment Study in Western Samoa (including an assessment of the vulnerability of existing structures).*** A study was conducted by the ADPC's Senior Research Scientist in February 1992 at the request of UNDP and UNCHS after Cyclone Val.
- ***Study on Disaster Mitigation.*** As part of an Asian Development Bank Technical Assistance the ADPC has published a major regional study "*Disaster Mitigation in Asia and the Pacific*", of which the aforementioned seminar was a part, and "*Disaster Management: A Disaster Manager's Handbook*".

Information

8. The ADPC's library and data base and collection of audio-visual materials are already recognized as a significant regional resource. An evaluation of the collection conducted by a consultant for ODA/UK said "*The overall coverage is considerably better in terms of case-content and the range of sources than any equivalent public collection or private institution in the UK that I am aware of in this specialist field. As a judgement, its collection of Asia and Pacific related emergency management materials is probably unique.*" A consultant employed by International Development Research Center to review the ADPC's information services described the ADPC's collection as "*pure gold*".

Technical Assistance to National Programs

9. Direct off-campus technical assistance to national programs is seen as the logical extension of the center's programs. There are usually four steps to the process: a country, often through an ADPC alumnus, writes to the Center requesting assistance; a potential sponsor is identified; an ADPC staff member visits the country for detailed discussions following which a technical assistance program is agreed. ADPC consultants are provided on request. The ADPC has provided technical assistance in developing and conducting national programs in Bangladesh, Cambodia, India, Nepal, The Philippines, Singapore, Sri Lanka, Thailand, Vietnam and the South Pacific.

10. The ADPC's report on Typhoon Sisang in the Philippines led to the introduction of the highly acclaimed Core Shelter Project. With technical assistance from the ADPC in

innovative design and construction techniques, the Department of Social Welfare and Development (DSWD) is implementing a program for the construction of typhoon-resistant low-cost traditional housing for typhoon victims. To date approximately 23,000 core shelters have been constructed which have withstood windspeeds of up to 180 kph. DSWD received the 1990 World Habitat Award for the project.

11. ADPC staff have undertaken more than 80 overseas missions in technical assistance to national programs, to give presentations at international conferences, or for liaison and promotional purposes.

SCHEDULES OF ACTIVITIES

12. The ADPC's Schedule of Activities 1992-1993 is at Annex B. Projected Activities 1992-1993 are at Annex C.

NEW PROGRAMS

General Programs

13. *Emergency Health.* Given the frequency of disasters in the region it is surprising that more attention has not been paid to their emergency health aspects. By contrast, Latin America is served by WHO's Pan American Health Organization Emergency Preparedness and Disaster Relief Coordination Program, and Africa by WHO's Panafrican Centre for Emergency Preparedness and Response. The deficiency in Asia and the Pacific is recognized and the need for an emergency health program has frequently been expressed by countries in the region, notably South Pacific island states. The ADPC plans to establish a full-time post of Program Coordinator (Emergency Health), but as an initial measure it is negotiating with WHO to conduct a regional workshop in the second half of 1992 or early in 1993. This workshop will be conducted in collaboration with WHO's Emergency Preparedness and Response Unit, its regional offices in India and The Philippines, country offices as appropriate, and other agencies.

14. *The Private Sector.* In collaboration with OFDA and USAID's International Disaster Advisory Committee the ADPC is initiating a program to stimulate and demonstrate the value of corporate-government-community cooperation in disaster management. A Disaster Information Services and Preparedness for Emergency at the Local Level (DISPELL) Program Coordinator post is being established to coordinate the design of a three to five year program. Initially the ADPC will organize a private sector disaster advisory committee; survey industry-community disaster needs; develop a prospectus and other material to encourage private sector-government collaboration; seek private sector resource support for the program and identify specialists from the private sector who could develop disaster mitigation and preparedness programs in the region.

15. *UNDP/UNDRO Disaster Management Training Program (DMTP).* The ADPC is the Regional Collaborating Institute for UNDP/UNDRO DMTP in Asia and the Pacific.

16. *Economic and Financial Aspects of Disasters.* The ADPC will initiate a program to examine the economic and financial aspects of disasters. The role of insurance will be addressed. This program has yet to be formulated in detail.

17. *Training Curriculum Development.* There is a requirement for more cohesive and substantive Asian-Pacific-specific training materials. Building upon existing material, the ADPC will develop additional case studies, topic modules and audio-visual aids in order to professionalise its own body of training materials and to develop packaged modules purpose-designed for use by trainers, with appropriate modifications to suit local needs, in Asian-Pacific countries.

Technical Programs

18. *Hazard Mitigation.* In collaboration with JICA and UNDRO a series of courses on the technical aspects of hazard mitigation will be initiated in 1992. Each course will address a particular hazard e.g. earthquake, flood, cyclonic storm, volcanic eruption. The target audience will be practising engineers and planners.

19. *Urban Development and Shelter.* A new program has been initiated to assist countries in the region in the development of in-country preparedness and mitigation programs in the urban development and shelter sector including the planning and development of demonstration or pilot projects with potential for replication; undertake post-disaster surveys, damage assessments, evaluations and other studies either for OFDA or ADPC or both; and prepare shelter guidelines, manuals and teaching materials. A post of Program Coordinator (Urban Development and Shelter) has been established with funding from OFDA. The incumbent will also work closely with USAID's Regional Housing and Urban Development Office in Bangkok.

20. *Technological Hazards.* The prevention and control of technological disasters is becoming a matter of increasing worldwide concern; this is particularly so in certain countries in the Asian-Pacific region where the pace of industrialization is very rapid. On-site safety measures are the responsibility of specialists. However, when a major incident has off-site implications local authorities become involved. There is a communications gap between on-site and off-site disaster managers. The ADPC proposes to establish a Technological Hazards program working in close collaboration with agencies such as ILO and UNEP. As a first step the Center will recruit a consultant to analyze the situation more precisely, identify needs and propose a detailed program.

21. *Risk Analysis and Crisis Management Training for Industry.* Recent approaches to ADPC indicate a demand for consultancy advisory services on risk analysis and crisis

management training for industry. This market will be explored, within the limits of the ADPC's expertise, in conjunction with the Center's technical hazards program.

22. *Studies, Pilot and Demonstration Projects.* A range of technological studies, pilot and demonstration projects will be undertaken as needs are identified and sponsorship becomes available e.g. seismic hazard risk in the Kathmandu Valley and earthquake resistant low cost housing and schools in The Philippines.

23. *Center for Disaster Prevention and Mitigation Studies.* In collaboration with AIT's academic divisions, the ADPC will initiate, develop and disseminate technological research and applied studies in order to further the application of appropriate, economic, solutions to the structural aspects of disaster prevention and mitigation.

Information Programs

24. *Development of Structured Database.* The ADPC disaster-related data base already serves a wide audience of Asian-Pacific countries and agencies further afield. Its value has been demonstrated. The database will be developed further by the collection, analysis and synthesis of further disaster-related material. The Center's in-house research capacity will be developed and modest support will be provided to national groups in order to develop indigenous capabilities. *Lessons Learned* case studies will be sponsored by qualified national consultants, working under ADPC technical supervision, utilizing the centers alumni as a principal resource.

25. *Dissemination.* A regular source of disaster management news and information, highlighting recent developments, is essential for promoting and sustaining active disaster management programs. Indeed, a database which is not actively disseminated serves little purpose. Inter-organizational liaison will be promoted between established national disaster management centers through an Asian-Pacific Disaster Management Information Network. The ADPC will publish a quarterly newsletter providing information on recent events and developments, research, training opportunities, new publications, conferences and points of contact. A directory of disaster management experts in the region will be compiled and circulated. Encouragement will be provided to national disaster databases, information and public awareness programs. A seminar will be held for national disaster information officers.

26. The Center's information programs will be developed in consultation with an Advisory Group composed of a small number of national experts.

27. *Systems Development.* There is a growing need for systems design (and communications) in disaster management. ADPC has already collaborated with the Cranfield Disaster Preparedness Center and the former Relief and Development Institute to initiate the design of a Logistical Decision Support System (LogDSS). This expert system computer software design is intended to facilitate the planning and implementation of disaster management logistical systems. Despite the recognition of a recurrent need for a

comprehensive logistical planning tool, emergency events continue to spawn new variations on a theme which are frequently oblivious to work which has been done previously. LogDSS and similar projects such as a hazard assessment and vulnerability analysis model are suitable for expert systems application, although additional development work is required. Geographic information systems and computer-assisted training packages offer attractive prospects for disaster managers. Increased global attention being given to disaster management bulletin boards, packet radio communications as a network "generator", electronic communications through wider, and easier, application of networks such as UNIENET, and the role of desktop publishing applications in information dissemination in support of the objectives cited above, are all activities consistent with computer systems design in promoting disaster preparedness awareness and the dissemination of mitigation practice. The ADPC will develop further its own capability in promoting these activities that have a particular relevance to the Asian and Pacific disaster management communities. In addition the ADPC will develop an on-going project able to extend the accessibility of contemporary technologies to national disaster management planners and practitioners. It is anticipated that this will reinforce national commitments to developing local capabilities and further disaster information dissemination throughout the region.

ORGANIZATION

Structure

28. The ADPC's organization and staffing charts are at Annex D and E.

Advisory Board

29. An ADPC Advisory Board is to be established.

ASIAN DISASTER PREPAREDNESS CENTER

COURSE PARTICIPANTS BY COUNTRY

COUNTRY	1988		1987		1986		1989		1990		1991			TOTAL							
	DMC-10MC-2	UNHCR UNICEF DMC-3	DMC-4	ADCS-1	DMC-5	DMC-6	CWR-1	SFRD	DMC-7	DMC-8	ADCS-10MC-8	ADCS-10MC-8	ADCS-10MC-10		CWRM-2	CWRM-3	DMC-11	CWRM-12	DMC-12	CWRM-12	
AFGHANISTAN																					
ALGERIA																					
AUSTRALIA																					
BANGLADESH																					
BRUNEI																					
CANADA																					
CHINA (PRC)																					
CHINA (Taipei)																					
COOK ISLANDS																					
ETHIOPIA																					
FUJI																					
FRANCE																					
GERMANY																					
HONG KONG																					
INDIA																					
INDONESIA																					
IRELAND																					
JAPAN																					
LAOS																					
KRIBATI																					
KOREA																					
MALAYSIA																					
MALDIVES																					
MARSHALL ISLANDS																					
MAURITIUS																					
MONGOLIA																					
MYANMAR (BURMA)																					
NEPAL																					
NIUE																					
PAKISTAN																					
PAPUA NEW GUINEA																					
PHILIPPINES																					
PANAMA																					
REP. OF PALAU																					
SINGAPORE																					
SOLOMON ISLANDS																					
SRI LANKA																					
SWITZERLAND																					
THAILAND																					
TONGA																					
TOVALU																					
USA																					
VANUATU																					
VIETNAM																					
WESTERN SAMOA																					
TOTAL	12	20	43	20	24	20	27	18	29	18	29	18	21	20	20	20	20	20	20	20	20

DMC : Disaster Management Course
 ADCS : Academic Design and Construction of Structures
 UNHCR : Disaster Management Workshop for UNHCR Co-funded with U of Wisconsin
 UNICEF : Disaster Management Workshop for UNICEF Co-funded with U of Wisconsin
 CWRM : Improving Cyclone Warning Response
 CWRM : Improving Cyclone Warning Response and Mitigation
 SFRD : Social Science Research on Disaster
 ADB : ADB Regional Seminar on Disaster Mitigation

Asian Disaster Preparedness Center

SCHEDULE OF ACTIVITIES 1992-1993

(As of 1 March 1992)

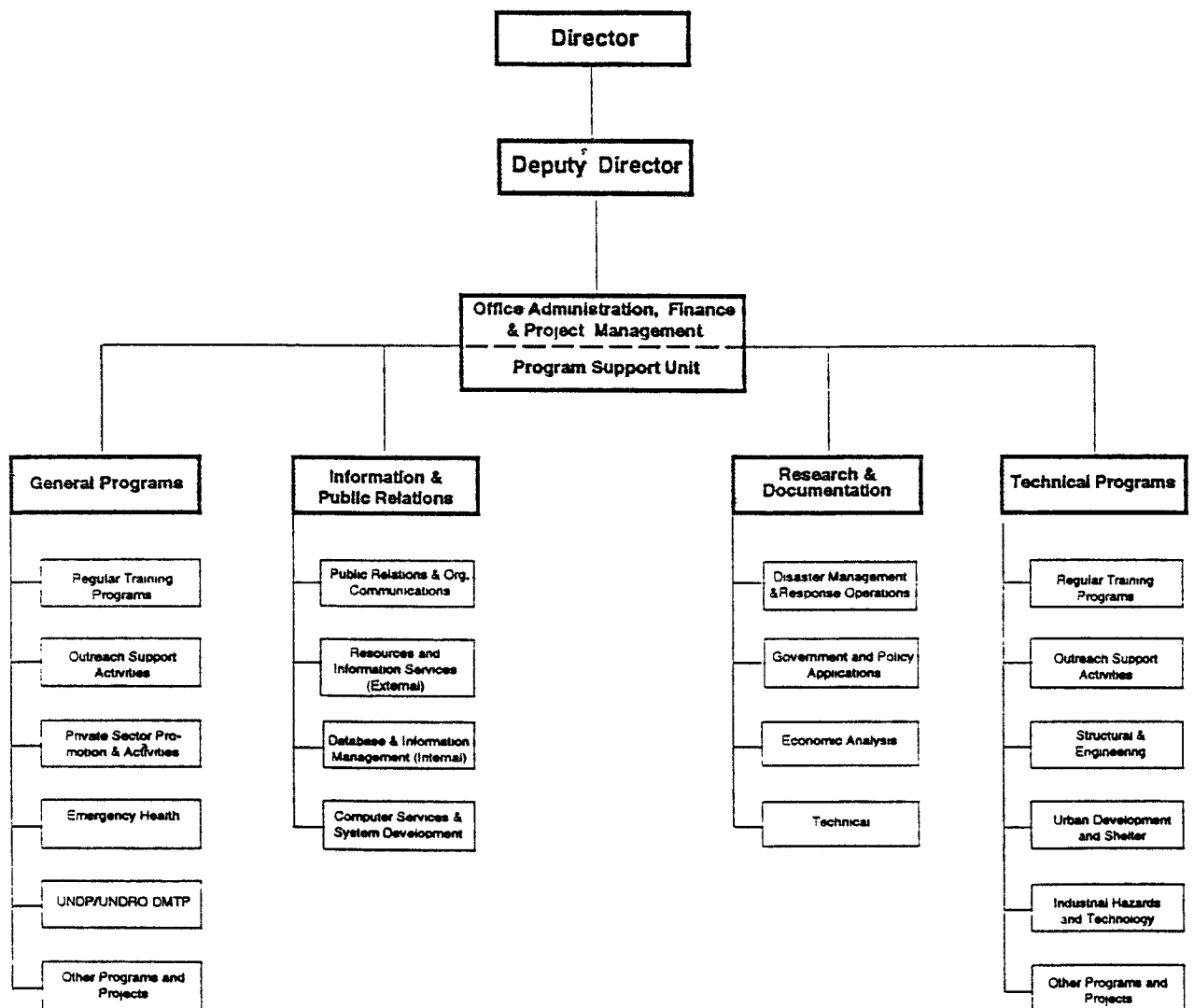
DATES	TITLE	CO-ORGANIZERS & SPONSORS	IN-CHARGE
1992			
Apr 6-17	Improving Cyclone Warning Response and Mitigation Workshop (ICWRM 6), <i>Vietnam</i>	EC	RLS/TJ/SPG
May 18 - 29	UNDP/UNDRO Disaster Management Training Programme, <i>Manila, Philippines/AIT, Thailand</i>	UNDP/UNDRO	TJ
Jun 1-Jul 10	Disaster Management Course (DMC 13), <i>AIT, Thailand</i>		TJ
Aug 9-22	Improving Cyclone Warning Response and Mitigation Workshop (ICWRM 7) <i>South Pacific</i>	EC	RLS/TJ/SPG
Sept 22-26	7th International Seminar on Earthquake Prognostics, <i>AIT, Thailand</i>	Free U of Berlin	SPG
September	Training Course on Earthquake Prognostics, <i>AIT, Thailand</i>		SPG
Oct 5-25	Seismic Hazard Mitigation, <i>AIT, Thailand</i>	JICA/UNDRO	SPG
Oct 12-Nov 20	Disaster Management Course (DMC 14), <i>AIT, Thailand</i>		TJ
Nov 30-Dec 11 (tentative)	Improving Cyclone Warning Response and Mitigation Workshop (ICWRM 8), <i>AIT, Thailand</i>	EC	RLS/TJ/SPG
1993			
Feb/Mar (Tentative)	Asian Seminar on International Humanitarian Law, <i>AIT, Thailand</i>	IHD	GG
Open	Emergency Health Course, <i>AIT, Thailand</i>		TJ
Open	Risk analysis and Management of Natural Hazards In Project Formulation. A Workshop for ADB Staff, <i>Manila, Philippines</i>	ADB	SPG

Asian Disaster Preparedness Center
Projected Activities 1991-1993
(as at 11 March 1992)

PROJECT TITLE	BUDGET (US\$)	DONOR(S)	DATES
URBAN DEVELOPMENT & SHELTER PROGRAM	408,600	USAID/RHUDO	1992-1993
IMPROVING CYCLONE WARNING RESPONSE & MITIGATION (ICWRM-6) - VIETNAM	73,900	CEC	April 6-17 1992
UNDP/UNDRO DISASTER MANAGEMENT TRAINING PROGRAM (DMTP)	868,600 (under preparation)	UNDP/UNDRO	1992/1993
DISASTER MANAGEMENT COURSE (DMC-13)	75,000	VARIOUS	May 18-June 26 1992
OFDA GRANT (SUPPORT ACTIVITIES) PRIVATE SECTOR PROGRAM	250,000 197,000	USAID/OFDA USAID/IDAC	June 1991-May 1992 June 1991 onwards
AUSTRALIAN INTERNATIONAL DEVELOPMENT ASSISTANCE BUREAU (AIDAB)	36,000	AIDAB	June 1991-July 1992
IMPROVING CYCLONE WARNING RESPONSE & MITIGATION (ICWRM-7) - SOUTH PACIFIC	103,950	CEC	Aug. 17-28 1992
TRAINING COURSE ON EARTHQUAKE PROGNOSTICS	58,800	GERMANY & OTHERS	Sept. 1992 (tentative)
7TH INTERNATIONAL SEMINAR ON EARTHQUAKE PROGNOSTICS	54,600	GERMANY & OTHERS	Sept. 22-26 1992
SEMINAR ON DISASTER PREPAREDNESS POLICIES AND MANAGEMENT	(under preparation)	DSE	Sept.- Oct. 1992
SEISMIC HAZARD MITIGATION COURSE	110,297	JICA/UNDRO	Oct. 5-25 1992
DISASTER MANAGEMENT COURSE (DMC-14)	75,000	VARIOUS	Oct. 12-Nov. 27 1992
IMPROVING CYCLONE WARNING RESPONSE & MITIGATION (ICWRM-8) - AT	93,754	CEC	Nov. 30-Dec. 11 1992
SUPPORT TO INFORMATION MANAGEMENT OF DISASTER MANAGERS IN ASIA & THE PACIFIC	288,000 (under preparation)	IDRC	1992-1994
EMERGENCY HEALTH COURSE	(under preparation)	WHO	Open
RISK ANALYSIS AND MANAGEMENT OF NATURAL HAZARDS IN PROJECT FORMULATION : A WORKSHOP FOR ADB STAFF	(under preparation)	ADB	Open
SRI LANKA NATIONAL DISASTER MANAGEMENT TRAINING PROGRAM	30,000 (under preparation)	UNDP	1992 (tentative)
ASIAN SEMINAR ON INTERNATIONAL HUMANITARIAN LAW	30,000	IHD	Feb/Mar 1993 (tentative)
ASSISTANCE TO MINISTRY OF RELIEF IN BANGLADESH	78,000	UNDP	1992
DISASTER MANAGEMENT ACTIVITIES IN ASIA	361,920 (under preparation)	CIDA	1991-1993
ADB RETA : EVALUATION OF ADPC	(under preparation)	ADB	1992

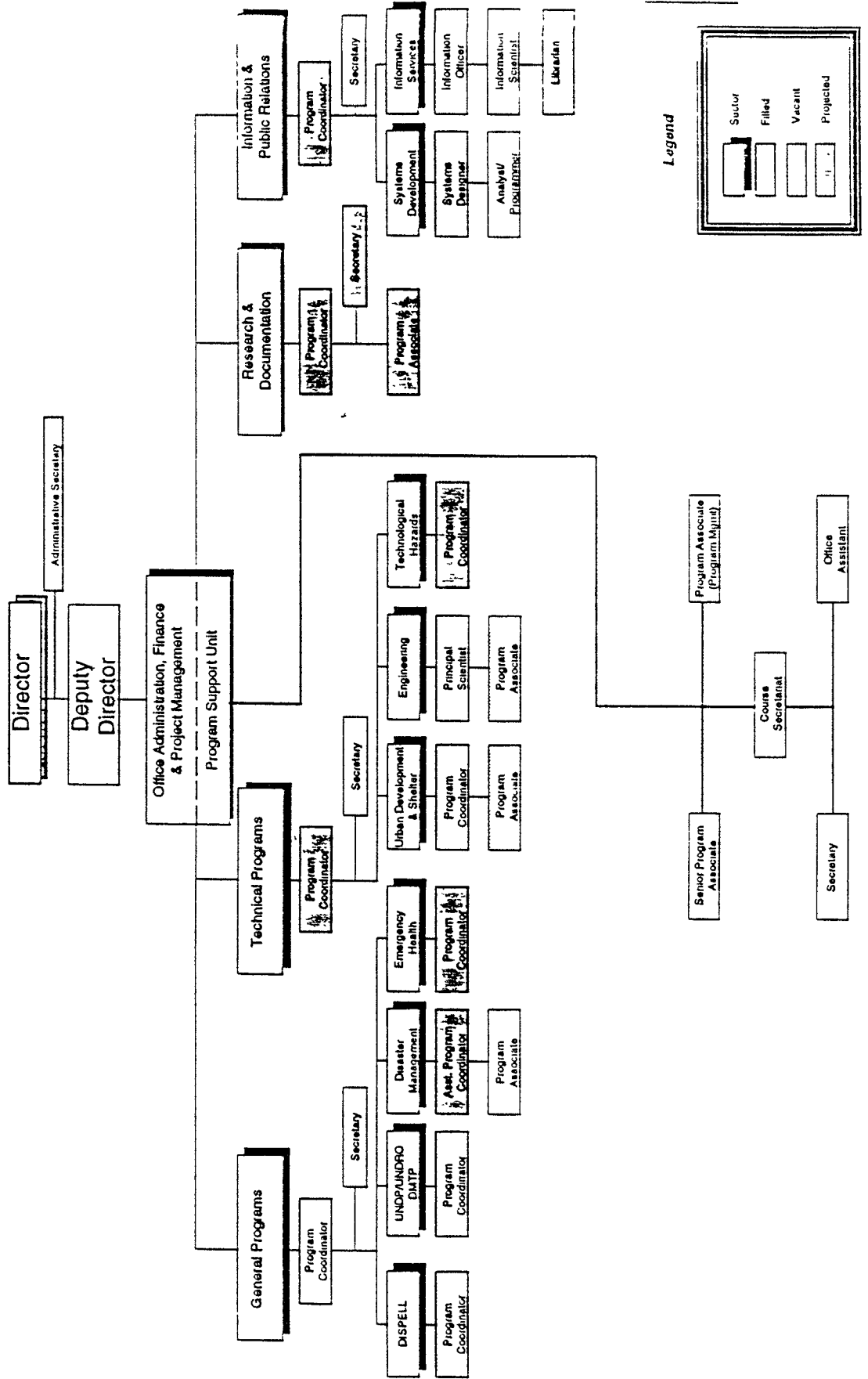
Asian Disaster Preparedness Center

Future Organization Chart



Asian Disaster Preparedness Center

STAFFING CHART



Annex E

Legend

