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**RECOMMENDATIONS TO ENHANCE H D P C
PROGRAMS AT A I T BANGKOK, THAILAND**

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**RECOMMENDATIONS TO ENHANCE DISASTER PREPAREDNESS
PROGRAMS AT THE ASIAN DISASTER PREPAREDNESS CENTER(ADPC)
AIT, BANGKOK**

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Recommendations to Enhance Disaster Preparedness
Programs at the Asian Disaster Preparedness Center,
AIT Bangkok

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SUMMARY RECOMMENDATIONS

- 1. EMPHASIZE COUNTRY SPECIFIC DISASTER SUPPORT SERVICES AT ADPC AND DEVELOP FUNCTIONAL CAPABILITIES TO PROVIDE DISASTER TRAINING SERVICES AND SPECIALIZED TECHNICAL CAPABILITIES TO PROVIDE DISASTER TECHNICAL SERVICES FOR BOTH NATURAL AND TECHNOLOGICAL (MAN-MADE) HAZARDS.**
- 2. DEVELOP A LONGTERM STRATEGIC PLANNING DOCUMENT (SPD) TO IDENTIFY PROPOSED DISASTER SUPPORT SERVICES AND ESTABLISH A SPD PROGRAM DIALOGUE WITH VARIOUS DONOR AGENCIES AND COUNTRY DEVELOPMENT PROGRAMS. THIS APPROACH WOULD ASSIST INTERNATIONAL DONORS AND HOST COUNTRY PROGRAM OFFICERS IN ADVANCE PLANNING AND BUDGET PROCESS TO SUPPORT ADPC PROGRAMS.**
- 3. ORGANIZE A SERIES OF REGIONAL WORKSHOPS FOR PRIORITIZING DISASTER PREPAREDNESS PROJECTS AND FORMULATING SPECIFIC APPROACHES TO PROMOTE COUNTRY SELFRELIANCE IN DISASTER PREPAREDNESS.**
- 4. ESTABLISH AN ADPC ADVISORY COMMITTEE WITH INTERNATIONALLY RECOGNIZED INDIVIDUALS FOR PROVIDING OPERATIONAL, TECHNICAL AND PROGRAM GUIDANCE AND COUNSEL FOR ADPC OPERATIONS.**
- 5. INITIATE STEPS TO PROMOTE "ASIAN DECADE OF DISASTER PREPAREDNESS" AND BEGIN PUBLISHING A QUARTERLY TECHNICAL JOURNAL TO SUPPORT THE CAUSE OF DISASTER PREPAREDNESS IN ASIA WITH JOINT SUPPORT FROM AID/DFDR AND UNDRR PROGRAMS. ESTABLISH A REGIONAL DATA BASE ON NATURAL AND TECHNOLOGICAL (MAN-MADE) DISASTERS AS PART OF THIS ACTIVITY WITH LINKAGES TO DISASTER DATA INFORMATION WITHIN AND OUTSIDE THE ASIAN REGION.**

PREFACE

This report presents the recommendations from a study to assess the program activities currently carried out by the Asian Disaster Preparedness Center (ADPC) at the Asian Institute of Technology (AIT) in Bangkok, Thailand. The purpose of this study is to develop long term program strategies to enhance disaster preparedness in Asia. The recommendations presented in this report are based on extensive discussions with ADPC staff, AIT senior staff and several country representatives attending the Third Disaster Management Course at ADPC; senior staff with UN regional programs in Bangkok including ESCAP, UNDP, UNEP, and UNESCO; US AID Mission in Thailand; Senior Staff with the UN Office of Disaster Relief Coordinator (UNDRO) in Geneva and senior members with other UN agencies in Geneva including UNHCR, WHO, UNITAR and UNICEF and key individuals who have programs associated with disaster management and training functions with NGO's (Non-Governmental and Voluntary Organizations). The recommendations made in this study are specifically aimed at developing program approaches which may enhance ADPC role as a premiere and focal institution in Asia and as a partner with countries in the region, to develop country self sufficiency in disaster preparedness.

Importance of Developing Self-Reliance in Disaster Preparedness

The goal of disaster preparedness programs is to enhance the community readiness to deal with disasters. Disaster preparedness training is aimed to protect the welfare of communities in areas prone to disasters and enhance the potential to mitigate and manage disasters with least disruption to the community life and minimal loss of resources.

Disaster preparedness should be an integral part of national development policies for developing countries in Asia and the Pacific region. The direct (short term) and indirect (long term) economic losses caused by disasters have significantly eroded the planned economic growth and have caused major disruptions for continued progress in economic and social developments in several disaster affected regions. For example the cyclone event that struck Bangladesh in 1985 caused a loss of 10,000 lives, displaced over 100,000 families, and made it necessary to begin the

development program efforts from ground zero, after nearly a decade of continued investment in development programs in the affected region, prior to the disaster.

Economic, social, cultural and community aspects and values vary significantly between the disaster prone areas within each country and between countries in Asia and the Pacific. It is therefore difficult to develop a unified strategy that would be effective for all countries even for similar types of disasters. Developing and improving the capacity of each developing country in disaster preparedness and response is the key for successful mitigation and management of disasters in Asia and the Pacific region.

The Asian Disaster Prevention Center (ADPC) has, within the past 18 months of its establishment at AIT, made an impressive beginning in planning and delivering disaster preparedness training programs for countries in Asia and the Pacific region. Since its establishment at AIT, ADPC has trained over one hundred technical and regional administrators and planners associated with disaster management from about 15 Asian countries on several important aspects of disaster preparedness. The Center has developed excellent working relationships with several countries in the region. The strategies recommended in this report are aimed to assist ADPC in the long term planning. The Center has a good potential to develop into a unique and focused institution in Asia for working with and helping disaster prone countries and communities and for building their confidence on methodologies, approaches and appropriate technologies to predict, mitigate, and manage natural and technological disasters.

STRATEGIES FOR ENHANCING ADPC PROGRAMS

RECOMMENDATION 1 - DISASTER SUPPORT SERVICE FUNCTIONS:

Emphasize country specific disaster support service functions at ADPC and develop functional capabilities to provide disaster training services and disaster technical services for natural and technological hazards.

Disaster support service functions refer to site specific training and technical activities which would be performed by ADPC if requested by host countries. These support services, conceptually, could range from preparing site specific disaster manuals, plans and procedures to providing site specific technical assessments on potential disasters and preparing technical guidelines to mitigate the hazards. These support service functions would be funded in conjunction with host country development programs and would be independent from ongoing disaster management training programs at ADPC. The primary drive for disaster

support service function comes from the established need to impart host country confidence on the approaches, methodologies and the use of appropriate technologies in disaster preparedness.

Providing country and region specific support services in disaster preparedness is vital to assist several countries in the Asian and Pacific region. For example, broad technical assessments indicate a high probability of recurrence, within the next decade, several major disasters in the Asian region such as floods and cyclones in Bangladesh, earthquakes in China (PRC) and Indonesia and the recurrence of several repeated and continuing disasters such as landslides in Nepal, industrial disasters in Hong Kong and Korea and underground coal mining disasters in China, India and Pakistan.

Country specific disaster support services should be organized at ADPC functionally different from broad based disaster preparedness training programs. Technical services at ADPC should include country specific technical evaluations on disaster threats, disaster responses, site specific vulnerability assessments, composite hazard mapping and micro-zoning of urban areas; transferring appropriate technologies for disaster prediction, warning and mitigation; disaster modeling and assessment of the impact of disasters on country specific development plans. Technological hazards such as workplace disasters including chemical explosions, mining disasters, land slides in urban development, and subsidence and contamination hazards associated with ground water extraction are currently receiving increased visibility in several countries in Asia and the Pacific region.

Training services at ADPC should include the preparation of country specific training documentations on disaster preparedness, relief and emergency planning, promoting community awareness, and developing methodologies to improve self reliance in disaster preparedness.

The disaster support service programs should be aimed at producing a direct impact on national disaster issues and should provide measurable contributions for improving the country disaster preparedness capabilities. A support service mode of operation would have the potential to attract resources directly from country development programs and would also bring ADPC closer to localized requirements in disaster preparedness. Such an approach would also lead to country participation and involvement in formulating and implementing specific and direct solutions on disaster related issues. A cooperative approach in formulating the disaster support service programs would potentially ensure a continued and long term host country partnership with ADPC on disaster preparedness programs. Initiating and expanding the disaster support service function and adding appropriate staff expertise to coordinate the technical service activities would enhance the ability of ADPC to provide expert technical advice on site specific disasters to host countries.

These steps would also provide the institutional capability on technical and technology aspects of disasters within ADPC and provide the means to develop graduate courses as appropriate for AIT graduate programs.

RECOMMENDATION 2- LONG TERM STRATEGIC PLANNING

ADPC should develop a long term strategic planning document (SPD), identify proposed disaster support services and establish a SPD program dialogue with various donor agencies and country development programs. This approach would assist the international donors and host country program officers with advance planning for the budget process to support ADPC programs.

ADPC has performed well in the first stage of its operation and has attained significant exposure to specific issues in disaster management in host countries. Examples of such contributions by ADPC include working with Sri Lanka to develop cyclone hazard preparedness planning and working with Philippines to develop awareness on a seismic design and construction of structures. The long term viability of the ADPC operations will largely depend on the ability of the Center to expand the programs and increase recipient and donor financial support and participation. A modest level of program growth would be essential during the first few years, to accomplish the objectives which the Center has set out to do in disaster preparedness for Asia and the Pacific countries.

A long term strategic planning document is essential for ADPC to plan and implement appropriate training and technical support services projects. Developing a long term strategic plan would also help to increase the visibility and the importance of ADPC programs to country budget planners. This strategic document would also provide adequate time for the donors to educate themselves on the significance of the proposed activities and develop appropriate approaches to plan and allocate funding for the individual tasks, well ahead of the budget cycle.

A strategic plan for ADPC programs should be prepared on proposed project activities including technical and training support service projects. The strategic plan should clearly project the growth of the center's programs from providing broad-based disaster training activities to providing full fledged disaster support service functions including country specific disaster training services and disaster technical services. The plan should identify potential sources of funds for each activity. The proposed strategic planning document should include:

- 1) Strategies and program plans to prioritize disaster issues and identify disaster support services to improve country capabilities in disaster management

- 2) Strategies and program plans to upgrade disaster technical capabilities and research at ADPC
- 3) Strategies and plans for ADPC operations to be self-supporting within the plan period
- 4) Approaches to develop potential national and regional programs in disaster preparedness
- 5) Subjective and, where feasible, quantitative evaluation of the cost effectiveness of proposed disaster support service projects to strengthen country development programs.
- 6) Identification of a critical path to achieve the objectives of the Center for each region and the funding levels that are necessary to accomplish the tasks
- 7) Identification of the flow of activities during the plan period to accomplish ADPC goals in disaster preparedness.

RECOMMENDATION 3 - PRIORITIZING PROJECT ACTIVITIES

Organize a series of regional workshops for prioritizing disaster preparedness projects and formulate specific approaches to promote country self reliance in disaster preparedness.

The type of disasters and the ability of the individual countries in Asia to prepare for and cope with disasters vary widely. Over 60 percent of major damages caused by natural disasters such as floods, cyclones, earthquakes and volcanoes have occurred within 10 percent of the land areas in Asia. Seventy percent of the disaster prone urban areas within Asia and the Pacific region have experienced repeated occurrences of the same type of disaster within the past two decades. This brings the issue of disaster prioritization and country planning for disaster preparedness as a number one priority for ADPC.

ADPC should organize forums to address country and disaster specific problems in cooperation with host countries. These forums should take place in close proximity to land areas and communities that are most affected by major types of disasters. Such direct exchange of experience would facilitate appropriate cooperative strategies and partnerships with host countries for disaster mitigation and management.

RECOMMENDATION 4 - ADPC ADVISORY COMMITTEE

Establish an ADPC Advisory Committee with internationally recognized individuals for providing operational, technical and program guidance and counsel for ADPC operations.

Establishing an Advisory Committee of experts to review ADPC programs and obtain overall guidance would be invaluable at the present stage of ADPC operations. The concept of advancing ADPC as a focal institution in Asia for disaster preparedness activities requires the support, participation and involvement of leading individuals and regional groups and agencies in Asia and around the world who are associated with disaster mitigation and management. The formation of such a committee should include the following individuals and/or representations:

- President, AIT
- One or more members from AIT faculties
- A key member from Japan (JICA)
- Senior representatives and/or advisors from disaster related institutions in Asia
- Key representatives from SAARC and ASEAN
- Recognized representation from the European community
- UNDRO Coordinator/Director
- UNDP Chief Officer/Regional Director
- OFDA Director
- Selected internationally recognized experts and leaders in disaster management and research from Asia and from around the world

The Advisory Committee should meet at AIT at least once a year to discuss the progress of programs and planned ADPC activities and matters relating to the functioning of ADPC within AIT. Funds should be set aside from AIT programs for this activity.

The establishment of similar Advisory Committees have, in the past, been extremely effective specifically, for new institutions to initiate and expand institutional capabilities. The evaluations and recommendations on ADPC activities by an expert Advisory Committee would be well received by the regions and agencies and would be credible to promote the support needed for a coordinated growth in disaster preparedness. Members of the Advisory Committee would also provide the important link with host countries and donor agencies for promoting and supporting the ADPC program activities.

The proposed Advisory Committee activities should include:

- 1) Review of the proposed technical and training services counsel and advise on ADPC organization and programs

- 2) Program prioritization and budget strategies
- 3) Cross linking of ADPC with AIT graduate programs and coordination of strategies for developing appropriate advanced programs in disaster management for graduate courses at AIT
- 4) Overall assessment of client (donor) needs and approaches to enhance host country participation with ADPC endeavors
- 5) Preparation of an expert document on the advisory panel views to enhance ADPC as a focal institution in Asia for providing services in disaster preparedness
- 6) Stimulating participation and program liaison from regional groups such as SAARC and ASEAN with ADPC activities.

RECOMMENDATION 5 - "ASIAN DECADE OF DISASTER PREPAREDNESS"

Initiate steps to promote "Asian decade of disaster preparedness" and begin publishing a quarterly technical journal to support the cause of disaster preparedness in Asia with joint support from OFDA and UNDRO. Establish a regional data base on natural and technological disasters in Asia, as part of this activity, and develop linkages with existing disaster information and data bases from around the world.

"The International Decade for Natural Hazard Reduction" was initially proposed by Dr. Frank Press from the U.S. National Academy of Sciences at the 8th World Conference on Earthquake Engineering in July 1984 and is gaining momentum within the United States and with several international agencies. Recently, the UN Secretary General reiterated the importance of mitigating natural and man-made disasters at the Second Regular Session of ECOSOC Meeting in Geneva on July 24, 1987. As part of this global awareness on hazard mitigation, it would be timely for ADPC to work on a new initiative and promote "Asian decade of disaster preparedness."

ADPC should bring together the efforts by the various agencies and country programs to investigate disasters in Asia as part of this initiative. The proposed publication of the Journal would be the first important step for the "Asian decade of disaster preparedness." The Journal should include highly recognized individuals within Asia and the Pacific region and from around the world in the editorial board and should attract a broad range of high quality contributions from the various sectors and countries in Asia on disaster related issues. The primary emphasis of the Journal should be on technical, technological, socio-economic and training aspects of disasters. The

Journal should provide an opportunity for countries in Asia and the Pacific region to participate and discuss specific issues of potential value in disaster preparedness.

ADPC has a good regional collection of published information and reports on disasters. Complete case histories on several past disasters in the Asian region, however, are not available and in some cases are non-existent. Developing a quantitative and quality data base on past disasters is an important first step for the disaster support service activities at ADPC. Appropriate approaches should be developed to establish the data base, information and data flow related to disasters within the Asian region. Methods should be formulated to stimulate the flow of disaster data information from host countries to ADPC and networking the disaster data information collected at ADPC worldwide, with other available institutional capabilities within and outside of the Asian region.

The commencement of the Asian decade of disaster preparedness should be jointly supported by OFDA and UNDR0. This approach would provide a worthwhile mechanism for ADPC to reach policy-makers within and outside country programs to support endeavors in disaster preparedness. This endeavor, if appropriately carried out, would pave the way for ADPC to organize forums and collective discussions with host country experts in identifying priority issues in disaster preparedness and marketing expert services available at ADPC. Such forums would also provide the exposure to bilateral donors on the importance of supporting disaster preparedness program activities.

Continued agency and donor support is essential for enhancing ADPC activities and implementing effective strategies for the "Asian decade of disaster preparedness." It would be unrealistic to anticipate that current ADPC programs would be self sustaining within the next four years. Agencies and potential donors should take steps to develop near term budget strategies to support the program. In addition to providing assistance on disaster preparedness training programs, donor agencies should consider providing direct support to ADPC in the following areas:

- 1) Support to upgrade the space and the office facilities for ADPC
- 2) Technical and program development assistance through appropriate short and long term assignments of expert individuals and senior program coordinators to ADPC programs
- 3) Contributions to upgrade the capability at ADPC for establishing the disaster support service functions including computer modelling capability and disaster simulation and control stations

- 4) Support to enhance the disaster data base capabilities at ADPC and assistance to provide appropriate systems for networking disaster data and information within and outside the regions
- 5) Support to conduct regional seminars and country workshops on priority issues in disaster mitigation and management
- 6) Support to facilitate advisory committee activities
- 7) Joint support with country development programs to obtain country specific disaster services
- 8) Support for initiation of the "Asian decade of disaster preparedness" including the publication of the Asian disaster preparedness journal by ADPC and the establishment of a disaster data base at ADPC.

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