AKPBS, Pakistan

END OF THE PROJECT REPORT

PROMISE
Program for Hydro-Meteorological Risk Mitigation in Secondary cities in Asia, Hyderabad

October 2008

ACKNOWLEDGEMENT

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Specially, we would like to thank the ADPC Director Mr. Arambepola for his vision and leadership in making PROMISE project a success in Hyderabad.

AKPBS, P Management
October 2008

ACRONYMS

ADPC	Asian Disaster Preparedness Centre
AKDN	Aga Khan Development Network
AKPBS,P	Aga Khan Planning And Building Service Pakistan
CCB	Community Citizen Board
CEO	Chief Executive Officer
CIDA	Canadian International Development Agencies
DCO	District Coordinator Officer
DRR	Disaster Risk Reduction
EDO	Executive District Officer
ERC	Emergency Relief Cell
FATA	Northern Area and the Federal Capital Area
GIS	Geographical information system
GNP	Gross National Product
NDMA	National Disaster Management Authority
NGO	Non Government Organization
NWFP	North West Frontier Province
PROMISE	Program for Hydro-meteorological Disaster Risk Mitigation in Secondary cities in Asia
SCF-UK	Save the children fund-UK
STPMT	Sindh Tarqee Pasand Mallah Tanzeem
UC	Union Council
UNDP	United Nation Development Program
USAID	United State Agency for International Development
WAPDA	Water and power development Authority

Final Report Promise
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1. Introduction

Pakistan lies between latitudes $23^0$30 N to $36^0$45 N and longitudes 61^0E to $75^0$31 E. It has a total area of about 79,609 sq km (79.61 million hectares). China borders it in the north, Afghanistan and Iran in the west, Arabian Sea in the south and India in its east. The country is divided into four Provinces: Baluchistan, Northwest Frontier Province (NWFP), Punjab and Sindh. Besides these, there are Federally Administered Tribal Areas (FATA), Northern Areas and the Federal Capital Area, Islamabad. Located in the north of the tropic of cancer, Pakistan possesses a great range of climatic diversity, from some of the hottest in the world (in Jacobabad and Sibi districts) to the snowy cold parts of Baluchistan and northern mountain areas. The climate, on the whole is extreme or continental. Along the coastal belt, the climate is modified by sea breezes. Pakistan is on the margins of the monsoon climate and the eastern parts of Pakistan receive most of the monsoon rainfall. The major part of Pakistan experiences dry climate.

Pakistan is the ninth most populated country in the world with an estimated population of about 150,694,740 (2003 estimate) and a population density of 189 persons/sq. km. Population is not evenly distributed among various provinces. In Pakistan, the population growth rate of 3.1% per annum for the country as a whole is higher than the average rate for developing countries (2.4% per annum). This high rate of growth is directly attributable to the decreasing health and educational facilities. The literacy rate is low at 45.7% and female literacy is only 30.6%.

Table 1

Urban / Rural Population Distribution (2001)	
Urban	33 %
Rural	67 %
Large Cities with population (1998)	
Karachi	9,269,265
Lahore	5,063,499
Faisalabad	1,977,246
Rawalpindi	1,406,214
Hyderabad	1,351,274
Islamabad	650,000 (approx)

Table 2

GDP In USD	$59 billion
GDP per Capita (U.S.$)	$410
GDP by Economic Sector	
- Agriculture, Forestry, Fishing	25%
- Industry	22.9%
- Services	52.1%

The economy of Pakistan is undergoing a transformation from subsistence agriculture to one based on agricultural mechanization, manufacturing and services. Agriculture production grew at a considerable rate during last two decades whereas the recorded rate of increase of growth of manufacturing and service sectors was higher. Consequently the urban economy emerged from a period of relative stagnation in the 70's to become an important contributor to Gross National Product (GNP), which registered a comparatively high growth during the last two decades. The main industries are agricultural processing, textiles, cement, iron and steel production, tyres, machinery and fertilizer.

Pakistan has a population of about 150 million living in 43,000 villages and 415 urban centres. The country is predominantly agricultural with about 70 per cent of its population living in villages. However, rural-urban migration is resulting in a major problem through exerting undue pressure on the urban infrastructure. The urban growth rate in Pakistan was more than four per cent per annum in the 1960s and 1970s. Provision

of urban shelter, infrastructure and services could not keep pace with this rapid growth. This has resulted in a deterioration of living conditions, increased environmental health hazards, and a rapid growth of slum and squatter settlements. Government and private sector housing programmes, which together produced only 510,000 units during the Fifth plan period (1978- 83), could only partially meet the shelter needs of the urban population. Squatter settlements (*Katchi abadies)* grew and are now estimated to accommodate 25 per cent of the urban population of Pakistan.

The concentration of more and more people into fewer and fewer cities is regarded as one of the major environmental threats of today. There are indications that several large cities in Pakistan like Karachi, Lahore, Faisalabad, Rawalpindi, Multan, Hyderabad, Gujranwala and Peshawar not only face traditional environmental problems such as lack of sanitation, chronic shortage of services, polluted air and water, disappearing open spaces and recreational areas, and traffic congestion, but also new problems like the overexploitation of the surrounding ecosystems to sustain the growing urban population. Another major problem is urban encroachment on prime agricultural land.

Table 3	
2.1 Availability of safe Water (%)	
Rural Urban	6 58
Water available in urban centres	5-10 gallons/capita/day
2.2 Power connections	
Rural Urban	15 70

1.1.1 Overview of hazards faced by Pakistan

Floods and Drought are the major types of hazards experienced in various parts of Pakistan. Flood is mostly experienced in Punjab, Sindh and NWFP province, while drought is prevalent certain areas in all the four provinces. Snowstorms, avalanches, thunderstorms, and lightening are confined phenomena in the high altitudes of northern mountains especially in Baltistan and Kohistan district. Harsh summer temperatures affect the large plain areas of Punjab, Sindh, Baluchistan, & NWFP. Windstorms are frequent in the central Punjab during summer season.

Major Disasters faced by Pakistan: 1990-2005
Table 4

Disaster	**Time**	**No of people dead**	**No of people Affected**
Flood	Sep 1992	1,334	12,324,024
Flood	July 1995	600	1,255,000
Wind storm/cyclone	May 1999	231	657,000
Flood	Mar 1998	1,000	200,000
Drought	Mar 2000	143,230 (since 1947)	2,200,000
Flood	Jul /Aug 2003	230	1,266,223
Flood	Feb 2005	520	7,000,450

Most frequent disaster event in Pakistan is floods due to the fact that it is located below the Himalayan upper catchments. Most affected areas are the plains of Punjab and Sindh provinces situated in the lower watershed of the Indus Basin Rivers system. Other provinces like the NWFP and Baluchistan are also affected but mostly by flash floods and

hills torrents. In countries like Pakistan the economic pressures forces many of the poor to live in dangerous locations; such as flood prone or drought prone or unstable hillside.

The Punjab Province experienced approximately 50 per cent of flood losses during the last forty years. The total losses due to floods in Pakistan were estimated to be in the region of about US$ 9 billion while nearly 8,000 people lost their lives. Heaviest direct flood damage in Pakistan is to agricultural crops followed by damage to urban and rural property and public utilities.

The recurring phenomena of floods have taken a heavy toll on the socio-economic development of the country. In 1992, there was flooding of three major rivers, Chenab, Jhelum, and Indus. In all the rivers the flood level recorded was exceptionally high, and the flood was rightly called a super flood with exceptional loss to life and property. Over 7.6 million inhabitants were affected and about a million houses were demolished or severely damaged. In addition to loss of livestock, over 1,300 people are reported to have died. Amongst its after effects, the 1992 floods alone reduced the gross domestic product growth from 6.2% to 4.7%.

Floods in the year 1996, affected 39 districts. A total of 3,486 villages and 1,383,089 persons were affected, almost 1 .9 million acres of land was inundated out of which 1.001 million acres carried crops. It caused damage to 44,904 houses of all types and destroyed 20, 146 houses of all types. In year 2001 on 23rd July, the cloud burst and heavy torrential rains resulted in floods in areas of Mansehra, Bunair, Rawalpindi, and Islamabad, which caused heavy loss of life and property. Islamabad received 620mm of rainfall in a short span of 7-8 hours, which broke the record of last 100 years. It is estimated that about 1.2 million people affected in Rawalpindi.

Table 5

1990-2005

Disaster	**Total of damage in USD (,000)**
Drought	226,9300
Floods	3,190,7074
Wind Storm	670,107

Pakistan has faced severe droughts in 1950-52; 1972-76; and 1996-2004. During 2000-01 when latest drought was at its peak over 500 people were killed, thousands migrated and almost all inhabitants of Thar were affected

1.1.2. Policy on Disaster Management

In Pakistan, prior to October 2005 earthquake in Kashmir, except for flood control, there is no specific institution for disaster management. The structure available is for flood forecasting and dissemination of flood warnings and payment of relief. Pakistan also lacks an integrated, comprehensive Disaster Policy. A mosaic of directives, instructions and ordinances in the working of various Nation Building Departments knits together into a semblance of policy. In essence, the disaster management policy does not embody any comprehensive approach towards risk mitigation. Instead, the primary thrust is towards providing emergency relief and rescue. After establishment of NDMA in December

2005, there is now an institution that has taken up the task of formulating a National Disaster Management Plan.

Pakistan's economy is in a very fragile state at present due to geopolitical reasons. The country is under huge internal and external debts. Long-term mitigation priorities are taking a back seat due to current difficulties faced by the country. The government of Pakistan has not made investments in the areas of preparedness, safer buildings, land use planning, extensive emergency management system and insurance sector. Disaster policies have often been overlooked and just recently NDMA has directed all provinces and federally administered territories to create financial provisions for disaster risk reduction in their annual development plans.

At the Federal level, national policy and development planning is done by the Planning and Development Division. It also acts as the secretariat for the Committee on National, Regional and Local Level Development. The **National Disaster Management Plan** is an amalgam of loosely knit orders, instructions and directives that collectively acts as the plan to which all-federal agencies work. The Cabinet Division, through the **Emergency Relief Cell** (ERC), monitors the Provincial Flood Plans and District Disaster Plan. The Federal Flood Commission, The Water and Power Development Authority (WAPDA), The Pakistan Meteorological Department, The Ministry of Environment and Youth and Urban Affairs and the Pakistan Army are the key institutions involved in the role of Disaster mitigation.

Cities in the plains of Punjab and Sindh province, located in the flood plains of Indus River Basin are most affected by floods. Cholistan region in Punjab, the D.I. Khan Division and surrounding areas in NWFP and large parts of Baluchistan province are prone to frequent droughts. These areas face a 20 year cycle of droughts. In every 20 years, a drought returns with more severity and longer duration.

1.1.3. Hyderabad City - Main candidate city for City Demonstration project

Hyderabad is a historical city of Sindh Province of Pakistan having established in 1843. It is the 8th largest city in Pakistan and 2nd largest in Sindh Province with a population of 1.6 million and a growth rate of 2.62%.The female population is 47%. Its importance lies in the fact that it is the District capital and the nearest town to the biggest metropolis, Karachi. The city has a lot of tourism potential due to its archaeological and historical sites and also due to presence of river Indus and various lakes within its boundaries. Its growth potential also lies in its small-scale industries such as food processing, textiles, hosiery, cement, cigarettes, glass, bangles, soap, paper, leather and plastic goods. Hyderabad City is a centre for handicrafts and has good educational and health facilities.

Hyderabad is one of more disaster prone cities in Pakistan and is often plagued by floods due to torrential rains. Also during drought season, Hyderabad hosts temporary immigrants from arid & semi arid regions of Sindh. According to the city government officials, 20% of the population lives in the low lying areas which are flood prone. The ground water table situation in low lying area are near to surface in some places hence the infiltration rate is very low and consequently most of the runoff goes to low lying area

and accumulates in very short time. Currently, the city has the maximum capacity of draining out one inch of rainfall in 24 hours which is insufficient. As the result of sudden monsoon rains, the low lying areas of Hyderabad face the issue of drainage disposal and stagnant water becomes the cause of damage to the infrastructure, houses etc as well as becomes a source of water borne diseases.

Hyderabad is prone to multiple hazards. The city is particularly vulnerable to hazards like floods, torrential rains, and human induced hazards like fire, gas leakage, traffic accidents, electrocution and heat strokes. Unlike floods and torrential rains, drought has a moderate indirect effect on the community economy as food items become dear in drought spells.

The city of Hyderabad lies on the left bank of mighty Indus river and surrounded by canal system is always exposed to breaches in canal and river system. The vulnerable points along main protective bund in the entire District are identified by the provincial irrigation department as under[1]:

S#	Taluka/Sub District	Vulnerable Point	Location
1.	Latifabad	Giddumal Front Bund	mile 1/5 to 4/4
2.	Qasimabad	Jamshoro Front Bund	mile 1/0 to 2/0
3.	Hyderabad Rural	Ghaliyoon Front Bund	mile 3/0 to 5/2
			mile 7/0 to 9/0
			mile 10/0 to 12/7
		Hajipur Bund	mile 8/0 to 8/4
			mile 12/4 to 13/5

Hyderabad has a got a forty years old drainage system which often chokes down when it rains heavily. The system is only capable of draining one inch rain water in a day which is insufficient in case of torrential rains as stated by the local community. Even in the normal conditions the existing drainage system is not able to cope with the pressure of sewage because of ever growing population size and continuous urbanization. In many of the low lying areas of tehsil (sub district of Latifabad) even the water disposal machines come under stagnant water. Moreover, due to absence of adequate sanitation sewerage times are drained into flowing freshwater canals.

January to mid February is a water hard period; when city water sources are exhausted and water becomes a rare commodity everywhere. Knowing no other source the city dwellers have to resort for untreated polluted water that is some times brought from *Manchhar* Lake.

Hyderabad city has a sizable industrial establishment that comprises of industries like textiles, cement, glass and soap, pottery, tanneries, and film; handicraft. The silver and gold work, lacquer ware, ornamented silks, and embroidered leather saddles, are also well established. Hyderabad is a major commercial centre for the agricultural produce that

[1] Source: Emergency Plan for 2006

includes millet, rice, wheat, cotton, and fruit. The industrial waste of the city is disposed off in Phuleli Canal which is a source of water supply for irrigation and drinking purposes to Districts of Tando Muhammad Khan and Badin. The water becomes a high risk and has a potential of creating a disaster for the inhabitants of the two districts.

The city of Hyderabad has developed in epochs of time and evolved from a tiny town to a medium level city providing shelter and civic services to more than one and half million population. Hovering electricity cables in entire city is a common scene and it possess a potential to become a disaster. Especially in period of floods and monsoon rains as well as in routine the electricity cables may create disaster due to cables break down taking the lives of people at risk.

1.4. Most Low Lying Areas of Hyderabad

Through the secondary data and interviews with the stakeholders and first hand experience during torrential rains of the year 2006, most of the areas of Taluka Latifabad were identified to be highly vulnerable to hydro meteorological disasters.

The current study therefore focuses on most of the areas of Taluka Latifabad (union council 12, 13, 14, 2 and 5) and one area of Union Council 16 of Hyderabad City.

1.5. Administrative System of Hyderabad

Hyderabad District is comprised of four Talukas (sub Districts) ie: Hyderabad City, Latifabad, Qasimabad and Hyderabad Rural.

Under the devolution system the District is headed by a Nazim (Administrator) elected by Union Council (basic administrative unit). At the District level the district assembly takes care of development planning. The Union Nazims become the members of the house and represent their respective areas in the assembly.

The District Coordination Officer (DCO) works under District Nazim as the chief of District bureaucracy. Executive District Officers (EDOs); (department heads such as Health, Revenue, Agriculture) work under DCO. A district has a number of Talukas (sub district level unit above the UCs) which have similar elected Nazims and Government officials system as the District for localized services. Under Talukas there are a number of Union Councils headed by Nazims and Naib Nazims at UC level.

There are 46 union councils in Hyderabad District; from which 16 union councils are only in Taluka Latifabad. Most of the areas of Latifabad Taluka are low lying. The Government has identified 26 locations as very low lying.

AKDN and FOCUS have agreed to support and provide resource inputs to implementation of proposed project activities. Both the organizations have a wide network and have implemented successful projects on community empowerment in development of village organizations, which included preparedness and mitigation activities. Their experience would be very beneficial in implementation of the proposed project.

ADPC also has a MOU with Peshawar University and will work with them in conducting Hazard assessment at city level. Peshawar University will in turn help in training of practitioners attached to public and private institutions and also the local government. Federal Flood Commission and UNDP have also agreed to support the proposed project activities and initiation of early warning mechanisms at community level. This would help in dissemination of the experience to other highly vulnerable communities.

2. Project Overview

2.1 Project Goal

Reduce vulnerability of urban communities through enhanced preparedness and mitigation of Hydro meteorological disasters in secondary cities of Pakistan.

2.2 Project Strategy

The project has already carried out hazard mapping and vulnerability assessment of the city of Hyderabad in the first phase of the project end December 2006. It would assist the local government to establish a sustainable disaster management strategy and an emergency response plan. The project has built the capacity of AKPBSP for the planning and implementation of such projects in the future. Small-scale demonstration projects were conducted in a low laying slum area in Hyderabad, which is prone to hydro-metrological disasters.

Findings were documented and discussed both at the policy level as well as at the grassroots level through workshops and seminars with government agencies, private sector and civil society organizations and communities. Consultative workshops were organized with relevant public and private sector agencies and civil society organizations to plan actions for preparedness and mitigations.

2.3 Project Objectives

1. Adoption of specific hydro-meteorological disaster preparedness and mitigation measures to manage hydro-meteorological disaster risk by stakeholders in Hyderabad, Pakistan.

2. Increased stakeholder involvement and further enhancement of strategies, tools and methodologies related to community preparedness and mitigation of hydro-meteorological disasters in urban communities.
3. Strengthen networks and links among relevant risk management institutions/organizations ion Hyderabad for improving potential and capacity for application and dissemination of lessons learned.

2.4 Partner Institutions for the Project

Aga Khan Planning and Building Services (AKPBSP) was established in 1980 as a part of Aga Khan Developmental Network in Pakistan. AKPBSP undertakes technology and infrastructure development related initiatives regularly on a non-profit basis. AKPBSP also assists various organizations in different provinces and regions of the country to help improve the community environment and living conditions through applied research and implementation; improved technological products and tools and institutional capacity building. Disaster mitigation and management is one of the key program initiatives of AKPBSP with planned and ongoing Habitat Risk management initiatives in the northern areas, NWFP and Sindh Province.

Focus Humanitarian Assistance (FOCUS) is an international emergency response agency that provides relief and support services during and following natural and man-made disasters, primarily in Asia and Africa. FOCUS helps people in need reduce their dependence on humanitarian aid as it facilitates their transition to sustainable self-reliance. FOCUS is affiliated with the Aga Khan Development Network, a group of institutions working to improve opportunities and living conditions, for people of all faiths and origins, in specific regions of the developing world.

In addition to providing relief and assistance following landslides, earthquakes, cyclones, floods and disease epidemics, FOCUS has, since it was founded in 1994, undertaken successful resettlement programs for displaced families and established effective disaster prevention, mitigation and preparation programs. Areas of the world where FOCUS has been involved include Afghanistan, East Timor, India, Mozambique, Pakistan, Russia, Tajikistan and Zanzibar. FOCUS's programs in Afghanistan have been undertaken in partnership with the United States Agency for International Development (USAID), the Canadian International Development Agency (CIDA) and the Government of the Federal Republic of Germany as well as other local and international agencies.

1. Aga Khan Planning and Building Services
2. Focus Humanitarian Pakistan

Focus Humanitarian Pakistan will provide technical assistance to AKPBS, P in preparing emergency and city action plans as well as providing resource persons support in different training interventions. Representatives of Focus will also be involved in different consultative workshops.

3 Achievements of the Project

The PROMISE project was started in May 2006. The important achievements of the project were as under:

3.1 Hazard Mapping and Vulnerability Assessment

a. Preliminary information on Flood prone areas was collected including maps of District Hyderabad and the maps of Latifabad which is low-lying flood prone area. The district government's reports and documents on Pre-flood/ Pre-Monsoon Preparedness Plans and report on 'Sindh Provincial Flood, Rain, and Cyclone Contingency Plan 2006' have also been collected.

b. Initial meetings with other government agencies including Sindh Irrigation and Drainage Authority for collecting information on vulnerable area/ points along the first bank of River Indus, which crosses the Hyderabad city, has taken place.

c. Huge downpour continued in the month of September 2006 in Hyderabad city with the major reading of 130 millimeter inundating most of the low lying areas in target area. Four people died due to electrocution.

d. The hazard and vulnerability activity based on basic tools of PRA mainly community mapping, seasonal calendar, transect walk and baseline survey which was based on semi structured questioners, interviews and interaction with community. In the activity 133 male and female participated from different strata (councilors, volunteers, activists of NGOs) of the target communities in current month.

Table: Details of Activity

S#	UC.NO/Sub District	Participants		Date
		Male	Female	
1.	13, Latifabad	18	8	4th Nov 2006
2.	14, Latifabad	20	9	8th Nov 2006
3.	12, Latifabad	19	11	14th Nov 2006
4.	16, City Hyd	21	7	16th Nov 2006
5.	2, Latifabad	15	5	18th Nov2006

e. The hazard and vulnerability study has been completed in the month of December 2006. AKPBS, P got feedback from ADPC to further improve the draft. The process of updating the report continued in the month of January 2007. AKPBS, P has

involved services of Mr. Karimullah Beg in the process of updating the report. Also few more GIS maps have been prepared.

f. The project team has facilitated the community in establishing five disaster management committees at union councils' level and the committees have been given orientation regarding their roles and responsibilities. Additionally two of them have been registered with the local Government as Community Citizen Board (CCB). Under the local government dispensation registered CCBs may access local Government funds in support of their community based small projects. The Disaster Management Committee in Ali Abad project area has got their committee registered under CCB and also submitted a project proposal for safe drinking water, which was approved by the District Assembly. A sum of PKR 15 million was allocated from government funds.

g. Forty (40) volunteers had been selected from different union councils of the project area were trained as SAR and MFR team in providing search and rescue as well as providing first aid to the communities.

3.2 Development of GIS Database

- AKPBS after GIS training has constituted a team for development of GIS database of project areas.
- Staff comprising Ms. Mehrunnisa Hashmani and Mr Usama Anwer after participation in GIS training conducted field visits and collected coordinates at various points using GPS in the project areas Latifabad, Hyderabad. The data including socio economic indicators was collected and used in developing a map, a database is being developed. Database and maps will be shared with the offices of District Coordination Officer and Town Municipal Officer, so these two decision-makers can use it as a readily available source of information.

3.3 Training and Capacity Building

a) Basic Training on 'Community Disaster Management'

Two days community based 'Basic Training on Disaster Management was held on 30th June and 1st July 2006 successfully. Conducted by two experienced local Resource Persons, with their training background from ADPC, the main topics covered were:

- An overview of the Disasters and Risks
- Basic concepts in Disaster Management
- Understanding Disaster Risk Management Process
- Community Based Disaster Risk Management
- Community Risk and Vulnerability Assessment
- Capacity Assessment
- Flood Preparedness
- Mitigation measures for Flooding

The trainees are members of the community-based disaster management committees, out of which two have evolved into Citizen Community Boards (CCBs) and have successfully obtained government funding for additional small infrastructure projects.

b) Training on 'Geographical Information System'

- Organized training on GIS from Sep 5-9, 2006 at Karachi by two ADPC resource persons. 13 staff of AKPBS Pakistan, Focus and Sungi participated. Topics covered:
    1. Principles of Mapping
    2. Concept of GIS
    3. ILWIS Software and Data Capturing
    4. Map Referencing
    5. Attribute Data Handling

Training was useful in further enhancement of the skills of three collaborating organizations. AKPBS,P has prepared maps of Hyderabad city shared earlier with ADPC and has started making maps for all of its physical intervention sites. Trainees from SUNGI are applying their skills for developing maps for their interventions in Mansehra, especially for reconstruction of the earthquake affected areas. Trainees from FOCUS are contributing in an ongoing effort to develop hazard maps for a number of selected valleys in Chitral and Northern Areas of Pakistan.

c) Community Capacity Building

Orientation work shops were convened by AKPBS, Pakistan in the month of November 2006 in Union Councils 2, 12, 13 and 14 of Latifabad sub district and Ali Abad ward of Hyderabad city in UC16. The purpose of orientation workshops were to orient the stakeholders (community, local government representatives and officials and representatives of NGOs, CBOs) with the PROMISE program objectives and increase basic understanding of disasters and community based disaster risk management. In the workshops 97 male and female participated. Orientation works were a key to sensitize a number of community activist, district officials, and elected representatives.

Consequently, The Deputy District Nazim of Hyderabad Mr. Zafar Rajput hosted the 5-day long Governance & Disaster Risk Reduction workshop organized by AKPBSP and ensured strong participation from district administration and members of the district council. Similarly, District Councilor Ms. Rana Ansar prevailed upon the City Nazim of Hyderabad Mr. Shabbar Chisty and Town Municipal Officer Mr. Fakhir Siddiqui to organize a Technical Orientation Session for the engineers and technicians working with the Works Department, Hyderabad Development Authority, Hyderabad Building Control, and Fire Department for Safe Construction in disaster prone areas. She invited AKPBS,P experts to deliver a half day session attended by 40 professionals in November 2008.

d) Participation in International Trainings and Annual Working Group Meetings

- Mr. Karimullah Beg, Training Manager, AKPBS,P got training on Community Based Disaster Risk Management in Bangkok scheduled in July. He will be is key Resource Person for replication of the Training for Promise Project.

- The training on 'Urban Governance and Risk Management' was conducted from 25-30 September 2006 at Philippines. However the nominees could not participate in the training due to problems in seeking Visa for Philippines

- The annual working group meeting was held at Manila, Philippines from 2-4 October 2006 in which following delegates from Pakistan including Mr Muhammad Hussain Syed, District Coordinating Officer, Hyderabad, Mr Ali Nayani, CEO, Focus International, Mr Khizer Farooq Omer, Manager, Planning, Monitoring, AKPBS and Mr Masood Ahmed Mahesar, Project Coordinator, PROMISE Hyderabad, AKPBS, Pakistan participated.

- PROMISE Coordinators' Meeting was held on October 1, 2006 at Manila in which Mr Masood Mahesar, Project Coordinator and Mr Khizer Omer Farooq represented Pakistan. Deliberations on different components of the project as well as reporting issues were held and Coordinators were brought on same wavelength of understanding.

- G&DRR training was held on September 2007 in Bangkok in which Mr. Faisal Farooq Khan, National Program Manager and Mr. Masood Mehsar, Program Manager participated. Participation in this training paved way for G&DRR training in Hyderabad conducted jointly by AKPBSP and ADPC resource persons. As a result DRR for Hyderabad received media attention and paved way for resource mobilization for government initiatives such as formation of an Emergency Operations Cell.

- Annual Working Group meeting was held in July 2008 in DaNang in which National Program Manager Mr. Faisal Farooq Khan and Hyderabad City Councilor Mrs. Rana Ansar represented Pakistan. Exposure of a proactive City Councilor to ADPC and its partners had a direct positive impact as she returned to Hyderabad with new vigor and commitment to make Hyderabad a disaster free city within coming years.

- CBDRM material has been translated in local language (Urdu) and the same is being used in community meetings for awareness at mass level. Translation of material also made it possible for numerous resource persons to use that material for awareness raising sessions in schools, colleges, and relevant government departments.

3.4 Networking with local organizations:

The project team held several meetings with the purpose to orient different stakeholders with the project objectives and discuss future collaboration options. The following meetings were held during the reporting period:

- Meeting with Humanitarian Coordinator of Save the Children Fund UK (SCF UK) was held in Hyderabad. SCF is supporting the Capacity Building activities of the local organizations on Disaster Management the grounds for common cooperation were discussed.

- Meeting with Director Irrigation and Drainage Institute of Mehran University was held to look into the possibilities of collaboration under PROMISE Project.

- Meeting with Local Support Unit of Sindh Devolved Social Services Programme was held to enhance the networking with District Government Hyderabad and Taluka Municipal Administrations within Hyderabad Districts.

- District Coordination Officer, Hyderabad (He controls the annual development budget of Hyderabad)

- Director Irrigation and Drainage Institute of Mehran University of Engineering and Technology (An expert on flood mitigation, No. one geo-hazard faced by Hyderabad)

- Taluka Municipal Officer, Latifabad (He is in-charge of all Govt. in a sub-district)

- Community Groups (for social mobilization and implementation of participatory demo-projects under PROMISE project)

- Representatives of NGOs:
    - Pak Social Welfare Society
    - Special friend for special children
    - District Anti TB Association
    - Sindh Tarqee Pasand Mallah Tanzeem (STPMT)
- All Sindh Ghera Sudhar Hindu Panchayat (A social network of Hindu minority groups in Sindh through which AKPBSP works for improving their living conditions)

- Community Groups (in Ali Abad and Latifabad No. 2): The communities were oriented with basic disaster concepts, purpose and objectives of PROMISE project. Four (4) volunteers from these two communities were identified, which will be trained later on as medical first responders

- A follow up meeting with District Coordinating Officer (DCO) after Annual Working Group meeting in Philippines. The DCO assured all out support and release of additional funds through Community Citizen Board funds under devolution plan in addition to demo projects under the PROMISE project

- Taluka Municipal Officer, Latifabad (This position is the main coordination body that mobilizes and allocates resources at sub-district level)

- Taluka Nazim (Administrator) and Naib Nazim (Deputy Administrator) Latifabad (Both are two senior most elected office bearers at sub-district level who had played key role in reaching out to the communities and garnering official support for the PROMISE project)

3.5 Meetings with ADPC team

- A detailed meeting with Dr. Iftekhar was carried out on 10th July 2006. In which overall progress of the project was reviewed. It provided important opportunity for clarity on Project Monitoring Plans, reporting needs, financial reporting, further training and other assistance by ADPC and other relevant information. The important outcome of the meeting was development of PMP.

3.6 Project Components and Activities

Component 1- Hazard Vulnerability and Risk Assessment

Activity - Hazard mapping and vulnerability assessment

During the first phase of the PROMISE project AKPBS, Pakistan has completed the hazard mapping and vulnerability assessment study. The study was conducted in highly participative manner involving different stakeholders. The process of the study included conducting meetings with representatives of the local government, community workshops with local councilors, citizens and members of different civil society organizations. The target communities were involved in data collection process through participatory rapid appraisal (PRA) techniques. The three inception workshops were held at Union Council level in UC 13, 14 and 12 of Taluka Latifabad.

Through the secondary data and interviews with the stakeholders and first hand experience during torrential rains of the year 2006, most of the areas of Taluka Latifabad were identified to be highly vulnerable to hydro meteorological disasters. The current study therefore focuses on most of the areas of Taluka Latifabad and one area of Union Council 16 of Hyderabad City. Further details of the study are summarized in Annex-A.

Findings of the report were shared with the major stakeholders during one-on-one meetings and joint discussions will be held in a consultative workshop to explore key points and innovative low cost ideas to be incorporated in City Action Plan and Emergency Response Plan. GOs, LGIs and civil society of Hyderabad City and AKPBSP would be the main participants of the meeting.

Component 2 –Mitigation and Preparedness

Activity - Identification of specific hydro-meteorological disaster preparedness and mitigation measures

a) The City Government has come up with a long term plan for the improvement of civic services which includes dealing with the hydro-meteorological disasters in Hyderabad city. Through consultative meetings with experts and the city

government and other relevant public and private sector organizations the project was complement the efforts of the city government through exploration of new innovative low-cost, sustainable ideas.

b) An Emergency Response Plan along with City Action Plan was prepared through stakeholder consultation, survey of city infrastructure and identification of alternative options.

c) The project is assisting the local government in establishing an emergency response cell of the city government to address flood related emergencies.

d) The project has identified and selected highly vulnerable communities situated in the low-lying areas of Hyderabad that is prone to flood and other hydro meteorological disasters. Small scale mitigation demonstrations were done in this community to address the hydro meteorological disasters. The demo projects included:

- Construction of small storm water disposal drains
- Water filtration units
- Construction of safety blocks (raised platforms)
- Rehabilitation and Redesigning of Existing Pumping Stations **(District government had taken up this initiative from PROMISE project)**
- Construction of Community Latrines

The output of these activities included capacity building of the local government to address the risk from the potential hydro meteorological hazards in the city of Hyderabad and demonstrating cost effective examples in a slum area.

Component 3- Training and Capacity Building

Activity - Training and Capacity Building of AKPBSP Staff

The project developed the capacity of AKPBSP through providing opportunities to attend regional capacity building events. This helped to get familiar with solutions adopted by other organizations/governments to address the various hydro meteorological disasters. These trainings were organized by ADPC in other program countries in the region. The project institutionalized similar trainings in Pakistan with the collaboration of Focus.
In the first phase of the project the AKPBS, P staff got the following trainings:

1. Community Based Disaster Management at Thailand (participated by Mr. K. Beg)
2. Geographical Information System (GIS) participated by 13 staff members of AKPBSP

In the 2nd Phase of the Project AKPBS, P staff participated in following regional trainings:

1. Urban Governance and Risk Management
2. Risk Assessment

The details and expected outcomes of these trainings were as under:

Name of Training	Urban Governance and Risk Management
Objectives/Major Contents	▪ Introduction to concepts of disaster risk reduction (hazards and vulnerability for hydro-meteorological disaster mitigation) ▪ Introduction to community based disaster risk management ▪ Emergency response planning and first response at the City Level ▪ Dealing with informal settlements: Mumbai case ▪ Overview of institutional arrangements relevant to hydro-meteorological disaster mitigation ▪ Land management and disaster risk reduction ▪ Reducing vulnerability through Urban Planning and Zoning ▪ Participatory approaches in governance and disaster risk reduction ▪ Overview of Issues of Urban Governance

Activity - Capacity Building of Disaster Management Committees

The project established and strengthened disaster management committees in registering with the District Government as CCBs. These committees functioned as agents for change and community level emergency responding agencies.

- Mobilizing community to form disaster management committees
- Established disaster management committees in six (6) program areas
- Build capacity of disaster management committees in:
    - Community based disaster risk management
    - Resource Acquisition and Mobilization
    - Advocacy and Networking
- Mentoring and monitoring of these committees

The details of these programs were given as follows:

Name of Training	Community Based Disaster Risk Management
Objectives/Major Contents	The training objective was to orient the members of disaster management committees with basic concepts and improve their skills regarding disasters, risk and response as well as preparedness mechanisms. The topics covered were: ▪ An overview of the Disasters and Risks ▪ Basic concepts in Disaster Management ▪ Understanding Disaster Risk Management Process ▪ Community Based Disaster Risk Management ▪ Community Risk and Vulnerability Assessment ▪ Capacity Assessment

	▪ Flood Preparedness ▪ Mitigation measures for Flooding
Participants	The participants of this training were mainly the members of disaster management committee members
Resource Person	Mr. Karimullah Beg, Manager Training, AKPBS, P

Name of Training	Advocacy and Networking
Objectives/Major Contents	The training objective was to orient the members of disaster management committees with basic skills of resource mobilization and acquisition. This training especially focused on acquiring District Government funds through Community Citizens Board in favor of their disaster mitigation projects. The proposed topics covered included: ▪ Fundamentals of Resource Mobilization ▪ Resources and its types ▪ Why resource mobilization ▪ Team effort ▪ The planning process: How does it work? ▪ How Is It Done?: Fund Raising Through Direct Mail ▪ Fund Raising Through Earned Income ▪ Fund Raising Through Special Events ▪ Fund Raising for Disaster Mitigation Projects through Local Governments Community Citizen Board Processes ▪ Fund Raising Through Grants
Participants	The participants of this training were mainly the members of disaster management committee members
Resource Person	The resource person for this training was acquired from Focus Humanitarian Assistance, Pakistan

Name of Training	Advocacy and Networking
Objectives/Major Contents	The training objective was to orient the members of disaster management committees with basic skills of advocating development priorities with District Government with particular focus on flood disaster related interventions. Topics covered: ▪ What Is Advocacy? ▪ Issues, Goals, and Objectives: Building the Foundation ▪ Target Audiences: Identifying Support and Opposition ▪ Messages: Informing, Persuading, and Moving to Action ▪ Data Collection: Bridging the Gap between ▪ What Are Advocacy Networks? ▪ Effective Communication: Understanding One Another ▪ Cooperation Not Competition: Building a Team

	▪ Mission Statements: Creating a Common Purpose ▪ Putting It All Together: Managing the Network ▪ The Policy and Decision Making Process in the Governments ▪ Prioritizing Policy Issues: Making the Best Matches ▪ Fundraising: Mobilizing Resources ▪ Implementation: Developing an Action Plan ▪ Monitoring and Evaluation
Participants	The participants of this training were mainly the members of disaster management committee members
Resource Person	The resource person for this training was acquired from Focus Humanitarian Assistance, Pakistan

Activity – Training of Volunteers and Medical First Responders

AKPBS, P project team has identified a team of volunteers from the targeted area to help government initiatives in times of emergency and make effective early warning system such as announcements in mosques, schools and hospitals to educate community to take best efforts to minimize damages. They were mobilized to educate community members to take hygiene practices in an emergency situation. Through the project the volunteers were trained in:

- First Aid
- Search and Rescue Operations

Activity - Public Awareness and dissemination workshops

One dissemination workshop was organized under the project; to share the findings of Hazard and Vulnerability Assessment with the major stakeholders. Civil society organizations, Local Government Representatives and officials were invited to participate in the event. Different IEC Material were developed and distributed in the area to increase awareness of the masses through leaflets/brochures and media coverage. The findings were shared with the relevant public and private sector organizations and with general public through awareness and dissemination workshops/brochures/leaflets and media coverage.

Sensitization sessions with the community were organized to make proper system of solid waste and its utilization in an emergency system. Normally in the flood situation solid waste remains in the streets and choke the drains, and drains over flow in the houses and streets and that disturbs the communication and people. Joint session with TMAs and community was organized to ensure the proper solid waste management in the targeted areas. In addition following workshops and seminars were organized to ensure wider dissemination and capacity building of communities:

- Health and hygiene in emergencies
- Awareness on building construction codes
- First Aid
- Formation of Community Citizen Boards and their Registration Process
- Volunteerism

- Teachers training in disaster risk reduction and preparedness issues

Interactive theatre was used as a tool of mobilization and awareness raising and one performance in a quarter was arranged. Radio talk shows were organized to raise awareness on disasters and mitigation measures.

Considering the importance of media in awareness raising and education of communities and stakeholders, the project team was established closer liaison and partnership with electronic and print media. The media played very crucial role in the following:

- Providing information to communities about the precautionary measures they can take to avoid the loss of life and property from hazards
- Highlight the need for involvement of communities in disaster preparedness activities
- Inform the public with timely and factual information about the extent of the disaster the losses caused and current situation of the hazard
- Advise the public about actions to be taken during the emergency period in order to avoid further losses, eg: evacuation, areas they should not go to and water purification techniques
- Highlight the need for application of minimum standards to ensure that the minimum needs of disaster survivors in terms of water sanitation, shelter, food and environmental health are met

The project team had arranged regular meetings and invited the media in consultation workshops and meetings to re-assert them to play their effective role in disaster conditions.

Component 4- Advocacy for Mainstreaming risk management in urban governance

Activity – Networking of local organizations and individuals for knowledge and experience sharing

Network of related and interested organizations and individuals were formed for a continuous dialogue and discussions. They lobbied for the policy level changes, allocation of funds for such interventions and develop partnerships for joint ventures.

The recent floods (2006) in Hyderabad occurred solely because of the inadequate sewage system, which has caused huge losses to human misery and infrastructure. Two development dialogues were conducted to identify options and coping mechanisms to adequately safeguard the communities against failure of the system and to appraise the Government institutions with the gravity of the situation through public dialogue. The local Government was convinced through these dialogues to include the recommendations in District Annual Development Plan.

AKPBS, P continued its networking meetings and also facilitated the local communities to link with the local Government representatives and officials of different civic institutions in order to bridge the gap for enhanced collaboration amongst the stake holder's fruitful results in the favor of the communities and the project.

Experience sharing workshops were organized on quarterly basis involving civil society organizations, communities and local Government representatives.

ADPC has good contacts with most of the USAID country missions in Asia. The contacts and coordination were further enhanced in 6 countries selected for program implementation. In the country context, efforts were made to join country level networks engaged in disaster mitigation and management efforts.

3.7 Demo Projects

The progress on physical implementation on demo projects was as under:

3.7.1 Reducing Physical Vulnerability through Developing Flood Mitigation Infrastructure in Ghera Sudhar Community, Hyderabad

The main activities were carried out under the project were:

- Earth filling in the streets of Ghera Hindu Basti
- Improving sanitation system through installing communal latrines

The works started in last week of January and the project was completed in the last week of May 2008. The four communal latrines and wash rooms had been constructed. The storm water drainage pipelines had been laid down.

3.7.2 Reducing Re Re Street Raising and Improving Drainage Lines in Aliabad Hyderabad

The main activities were carried out under the project were:

- Raising streets with earth filling
- Installing covered drains
- Mobilizing communities for maintenance of the schemes
- Monitoring and supervision

The earth filling and storm water drains with arch covers was completed.

3.7.3 Reducing Vulnerability of Communities through Flood Mitigation Demo Projects in Thakur Colony, Hyderabad

The main activities were carried out under the project included:

- Mobilize communities for saving generation
- Constructing approximately 1050 rft of under ground drain
- Earth filling (15,000 cft) in the streets of Mohallah
- Construction of two communal latrines
- CC flooring to all streets of the colony
- Health and hygiene education through interactive dialogues and demonstration
- Monitoring and supervision

All the construction works have completed. The project has constructed 1,050 rft of open drain as against target of 850 rft through efficient utilization of resources and community cooperation.

3.7.4 Reducing Installation and Rehabilitation of Drainage Line in UC # 2 Latifabad, Hyderabad

The main activities were carried out under the project were:

- Constructing approximately 850 rft of open drain with covers
- Earth filling (15,000 cft) in the streets of Mohallah
- Construction of two communal latrines
- Health and hygiene education through interactive dialogues and demonstration
- Monitoring and supervision

All the construction works have been completed.

3.7.5 Mitigating Flood through Improved Drainage System in Maheshwari Colony

The main activities were carried out under the project were:

- Community dialogue
- Installation of sump tank with 10’ dia and construction of 850 rft drainage line
- Rehabilitation of four communal latrines

Reducing Key outputs

- ✓ Communities were safe against flooding disaster
- ✓ Safer drainage system was in place to reduce physical vulnerability of communities
- ✓ Communities were able to maintain the drainage system properly
- ✓ Improved hygienic conditions in the area

4. Obstacles at the start of the project

- The low literacy ratio especially in semi urban areas, which are seriously vulnerable to disaster risks and are affected by various hazards, could not understand the gravity.
- Poor financial capacity and logistic support for Emergency Response Cell.
- Lack of proper management of natural resources
- Lack of awareness on disaster risk management
- The development plans do not address disaster risk management
- Weak coordination amongst the development and relief agencies
- Non participation of vulnerable communities in various, mitigation and planning process of disaster risk management.
- Lack of adequate arrangement for early warning system at the grassroots level.
- Poor technical know-how amongst the key stakeholders such as Hyderabad Development Authority, Building Control Department, Revenue Department, Water & Sanitation Authority, and the Office of the District Nazim.
- Very poor capacity of emergency services to face hazards associated with fire, flood, industrial accidents, epidemics, civil defense.
- Poor enforcement of laws, regulations, concerning to disaster risk reduction.
- Population explosion, local migration from rural to urban areas, inflow of people from other provinces and refuges from Bangladesh, Afghanistan and India.

Re ducing **Opportunities**

- **Reducing** The political system is now sensitized about the disaster risk management that could be harnessed.
- NGO's/CBO's are providing tremendous services for both disaster preparedness and response. Their resources could be pooled and efforts coordinated to mainstream disaster risk management at all levels of the government.
- Presence of quality research institutions like PCSIR, Geological Survey of Pakistan, SUPARCO, Geological Research Institutes of University of Sindh, Karachi University, NED Engineering University, Mehran University allows opportunities for conducting research for developing new materials and strategies for disaster risk management.

5. Exit strategy

Reducing Lessons Learned

- ✓ **Reducing** Disaster management in research areas should be linked with the process of annual development planning within the ambit of district assembly. Floods, droughts, earthquakes should not be viewed as transitory and isolated events rather they should be looked at as pending issues of development and governance. Thus, this calls for gearing up line departments to attend to these issues on long-term basis.

- ✓ Water and habitat insecurities need to be addressed prominently as these are basic elements, which constitute a livelihood.
- ✓ The proposed disaster preparedness strategy may also include health and awareness raising services to disaster prone communities as these two vital components substantially contribute in risk reduction process.
- ✓ The dwellings, hamlets and villages which are situated in the low lying areas of Hyderabad city (mostly in Latifabad sub district) are the most frequent subject to the periodical hazards. The structure and placement of houses, non-availability of hazard-resistant physical infrastructure and remoteness comes into alliance to constitute the physical vulnerability of communities at large.
- ✓ The recent floods (2006) in Hyderabad occurred solely because of the inadequate sewerage system, which has caused huge losses to human misery and infrastructure. Few people also lost their lives. Therefore some structural and non structural coping mechanisms need to be adopted. Some of these measures are:
    - o The existing sewage system is inadequate to cater growing population need as outlet drains are narrow and not capable to drain out enough sewage water than required. Whereas the additional pumping stations need to be constructed and Government needs to focus and address this issue at macro (city) level
    - o When hazards like floods remain unaddressed, outbreak of epidemics occur which can be tackled by community awareness activities and training of volunteers for providing first aid. Government must try to make its vaccination campaigns more effective.
    - o A detailed survey of weak infrastructure is required to be done. A joint survey by AKPBS, Pakistan and Local Government may help identify the intensity of the problem. Building codes should be regulated and strictly enforced by HDA (Hyderabad Development Authority). The community should also be trained in adopting seismic and flood resistant housing techniques.
    - o Water security was the first foremost issue emerged in the vulnerability context along with habitat and work security. Community water filters are required by the residents to be established at flood safe places.
    - o There is considerable volunteerism spirit available in the communities however a thorough social mobilization process is required to facilitate to form disaster preparedness and management committees. Later on they should be registered as community citizen boards (CCBs). The capacity of these CCBs should be enhanced and strengthened so that they could mobilize public resources in support of community projects aimed at reducing community vulnerabilities against disasters
    - o Sewage water and rain water disposal be treated and managed separately so as rainwater can be harvested for future use
    - o Technical capacity of community organizations, masons, school teachers may be enhanced to deal with disaster risk reduction and preparedness issues

- The programmes require focusing on local institutional development, capacity building, and implementation of preparedness activities at neighbourhood or city levels. The program should include strengthening of livelihoods and implementation of small scale mitigation schemes to be identified through local prioritization process
- The community is not much aware about the disaster risks and vulnerabilities as well as basic strategies to deal with the disasters, specific trainings in the areas of response would be needed; e.g. search and rescue, first aid, evacuation, camp management and relief distribution
- Technical capacity of district and municipal officials in hazard prone areas needs to be enhanced for disaster risk reduction and preparedness
- Tri partite (Government, Citizenry and Civil Society) dialogues and working group at community level for mainstreaming and development planning should be established
- An emergency operation centre at the Taluka level will be established and the community organizations will be trained to develop local early warning systems
- Considering the importance of media in awareness raising and education of communities and stakeholders, the project team will establish closer liaison and partnerships with electronic and print media.
- Encourage NGO participation in disaster risk management activities aimed at reducing vulnerability of at-risk-communities and individuals. In specific terms NGO's will be encouraged to participate in training, public education, damage assessment, rehabilitation and construction projects in disaster stricken areas.
- Review the existing building codes, revise and update building codes if necessary and involve in consultation with the city officials Hyderabad Development Authority for wider information.
- Hold workshops with relevant stakeholders (local political leaders, local government departments, NGOs, community groups, civil society organizations) to share the results of risk assessment and to identify strategies for vulnerability reduction; also identify social, technical and financial resources that are locally available to reduce vulnerabilities and mitigate hazards.
- Organize drills at the district/municipal levels with participation of all emergency response agencies.
- Prioritize and implement mitigation schemes based upon an analysis of resources available at local level