



In the name of Allah - The most Beneficent & Merciful

GOVERNMENT OF PAKISTAN  
INDUS RIVER SYSTEM AUTHORITY



PRESENTATION

ON

WATER RELATED DISASTER AND ITS MANAGEMENT IN  
PAKISTAN

## HISTORIC PERSPECTIVE

- ❑ **After creation of Pakistan, a Central Engineering Authority was constituted under Chief Engineering Advisor to deal with the issues of water, power and allied engineering matters at National Level**
- ❑ **It was re-designated as Chief Engineering Advisor's Office after establishment of Water & Development Authority (WAPDA) in 1959**
- ❑ **In 1977 Federal Flood Commission was established for the purpose of integrated flood management at National Level**
- ❑ **In 1982 a Federal Coordination Cell (now re-designated as FID Cell) was established to coordinate activities of the Provincial Irrigation Departments in particular in the drainage sector**
- ❑ **In 1987 Dam Safety Council was established to carry out inspections of existing dams and plans for new dams etc.**

## MAJOR SECTIONS OF THE OFFICE OF CEA/CFFC

1. **Civil Engineering Advisory Cell**
2. **Federal Irrigation & Drainage Cell (FIDC)**
3. **Flood Cell ( For Federal Flood Commission)**
4. **Dam Safety Council Secretariat**
5. **PANCID/PANCOLD Secretariat**
6. **Power Engineering Cell**
7. **Management & Administration Cell**

## Functions of Engineering Advisory Cell

- i) Scrutiny of feasibility reports, PC-Is, Conceptual / Inception/Interim Reports, etc., prepared by WAPDA, Provincial Governments and other agencies**
- ii) Watch daily operations of major reservoirs (Tarbela, Mangla & Chashma)**
- iii) Exchange of technical data and general liaison with international organizations, namely, International Commission on Large Dams (ICOLD), International Commission on Irrigation and Drainage (ICID), IIMI, IPTRID, FAO, WMO, UNEP, UNDP, UNESCO etc.**

## Federal Irrigation & Drainage Cell (FIDC)

- i) Act as Secretariat for Federal Programme Steering Committee for National Drainage Programme (NDP) headed by Secretary Water & Power**
- ii) Inter-Provincial conflict resolution relating to NDP**
- iii) To evolve National Water Policy**
- iv) To oversee and monitor NDP**

## **Federal Cell ( For Federal Flood Commission)**

- i) To implement the functions of Federal Flood Commission (FFC)**
- ii) To run Flood Communication Cell during Flood Season for effective dissemination of river flow and weather related information to President's and Prime Minister's Secretariat besides Ministry of Water & Power**
- iii) To implement structural and non-structural flood control measures under different programmes as envisaged in the National Flood Protection Plan (NFPP)**
- iv) To monitor the implementation of flood protection works under different programmes as envisaged in NFPP**

**(Detailed presentation to follow after brief introduction of sections)**

## Functions of Dam Safety Council

- i) To carry out periodic inspections of dams and advise WAPDA regarding repairs and maintenance of dams and reservoirs**
- ii) To review the plans of new dams and monitor the implementation of such projects**
- iii) To review the plans and specifications for enlargement, modifications, major repairs, revival or abandoning of dams/reservoirs**
- iv) To supply technical data and general liaison with World Bank and U.N. Organizations**
- v) To keep close liaison with International Commission on Large Dams (ICOLD)**



## PANCID/PANCOLD Secretariat

- i) **Exchange of technical data and general liaison with International Organizations, namely International Commission on Large Dams (ICOLD) and International Commission on Irrigation and Drainage (ICID)**
- ii) **To arrange seminars, symposiums and workshops in collaboration with ICOLD/ICID**
- iii) **To act as the Secretariat of Pakistan National Committee on ICOLD and ICID**

## Functions of Power Cell

- i) To scrutinize power projects prepared by WAPDA and KESC and render expert advice to the Ministry**
- ii) To monitor and evaluate performance of WAPDA and KESC and suggest improvements in operational procedures**
- iii) To coordinate hydel power development activities between GTZ, federal and provincial governments**
- iv) Exchange and technical data and general liaison with international and national bodies on Power Engineering, namely, World Engineering Council (WEC), Energy Working Groups of Asia Pacific Economic Cooperation (APEC), etc.**

## Management & Administration Cell

- i) Administrative coordination of trainings (both local as well as foreign)**
- ii) General services management**
- iii) Annual budgeting of office and development projects, utilization, control and audit**
- iv) Maintenance of project accounts, processing of consultancy services bills, internal inspection of accounts and financial monitoring of development projects**

# FEDERAL FLOOD COMMISSION



## Establishment of Federal Flood Commission

- Prior to 1976, the Provincial Governments were responsible for the planning and execution of flood protection works
- Disastrous floods of 1973 and 1976 resulted in heavy losses indicating that existing flood protection facilities and planning were inadequate to provide effective protective measures for the country
- Consequently in January 1977 it was decided to establish Federal Flood Commission for integrated flood management on country-wide basis

## Functions of Federal Flood Commission

- i) **Preparation of National Flood Protection Plans**
- ii) **Approval of Flood Control Schemes prepared by Provincial Governments and concerned federal agencies**
- iii) **Review of flood damages to public sector infrastructure and review of plans for restoration and reconstruction works**
- iv) **Measures for improvements in Flood Forecasting and Warning System**
- v) **Standardization of designs and specifications for Flood Protection Works**
- vi) **Evaluation and monitoring relating to progress of implementation of the National Flood Protection Plan(NFPP)**
- vii) **Preparation of a research program for Flood Control and Protection**
- viii) **Recommendations regarding principles of regulation of reservoirs for flood control**

**Note: Responsibility of implementation rest with the Provinces**

# Composition of Federal Flood Commission

- |   |                 |
|---|-----------------|
| <input type="checkbox"/> <b>Chief Engineering Adviser/Chairman<br/>Federal Flood Commission</b> | <b>Chairman</b> |
| <input type="checkbox"/> <b>Chief (Water), P &amp; D Division</b>                               | <b>Member</b>   |
| <input type="checkbox"/> <b>Joint Secretary (Roads)<br/>M/O Communications</b>                  | <b>Member</b>   |
| <input type="checkbox"/> <b>Member (Water) WAPDA</b>  | <b>Member</b>   |
| <input type="checkbox"/> <b>Director General<br/>Pakistan Meteorological Department</b>         | <b>Member</b>   |
| <input type="checkbox"/> <b>Member (Civil) Engineering<br/>Pakistan Railways</b>                | <b>Member</b>   |
| <input type="checkbox"/> <b>Four Provincial Irrigation Secretaries</b>                          | <b>Members</b>  |

**Note:** The Commission can co-opt additional members as it may deem necessary

## Historical Flood Damages

<b>Year</b>	<b>Damages (in US million\$ at 2002 Price level)</b>	<b>Human Lives Lost</b>	<b>Villages affected</b>
<b>1950</b>	<b>207</b>	<b>2,190</b>	<b>10,000</b>
<b>1956</b>	<b>135</b>	<b>160</b>	<b>11,609</b>
<b>1957</b>	<b>128</b>	<b>83</b>	<b>4,498</b>
<b>1973</b>	<b>2176</b>	<b>474</b>	<b>9,719</b>
<b>1976</b>	<b>1476</b>	<b>425</b>	<b>18,390</b>
<b>1978</b>	<b>944</b>	<b>393</b>	<b>9,199</b>
<b>1988</b>	<b>470</b>	<b>508</b>	<b>1,000</b>
<b>1992</b>	<b>1276</b>	<b>1008</b>	<b>13,208</b>
<b>1995</b>	<b>160</b>	<b>591</b>	<b>6,852</b>
<b>2001</b>	<b>50</b>	<b>219</b>	<b>50</b>
<b>Total:</b>	<b>7,022</b>	<b>6,051</b>	



## Causes of Floods in Pakistan

- ❑ **Floods in rivers are caused by heavy concentrated monsoon rains**
- ❑ **Sometimes augmented by snowmelt flows**
- ❑ **Monsoon depressions originating in the Bay of Bengal often result in heavy downpour**
- ❑ **Additional contribution by weather systems from Arabian Sea (Seasonal Low), and Mediterranean Sea (Westerly Wave) producing destructive floods in one or more of the main rivers of the Indus System**
- ❑ **Temporary natural dams as a result of landslide or glacier movement also sometimes cause floods**

## Flood Management - Objectives

**Flood Management in Pakistan is aimed at the following main objectives:**

- ❑ Reduction of floods and flood damages**
- ❑ Protection of cities, vital infrastructural installations, prioritized economic areas and other areas in that order**
- ❑ Exploring more effective use of existing flood control facilities**
- ❑ Improvements in Watershed and River Management Practices**
- ❑ Improvement in Flood Forecasting & Advance Warning System**

## Flood Management – Agencies Involved

- i) Federal Flood Commission (FFC)**
- ii) National Flood Forecasting Division (NFFD/PMD)**
- iii) Pakistan Army**
- iv) Provincial Irrigation and Power Departments (PIDs/PIDAs)**
- v) Water & Power Development Authority of Pakistan (WAPDA)**
- vi) Emergency Relief Cell, Cabinet Division, Islamabad**
- vii) Provincial Flood Relief Departments**
- viii) Pakistan Commissioner For Indus Waters**
- ix) Police**
- x) Pakistan Forest Department**
- xi) Pakistan Railways**
- xii) Information Department**
- xiii) Provincial Communication Departments**
- xiv) District Administrations**

# Flood Management – Strategies

## Structural Measures

- ❑ **Construction Of Embankments**
- ❑ **Construction Of Spurs/Battery Of Spurs**
- ❑ **Construction Of Dikes/Gabion Walls/Flood Walls**
- ❑ **Construction Of Dispersion/Diversion Structures**
- ❑ **Channelization Of Flood Waters**
- ❑ **Construction Of Delay Action Dams**
- ❑ **Construction Of Bypass Structures**

# Flood Management – Strategies

## Non-Structural Measures

### Improved Flood Forecasting System through :

- ❑ **Effective Data Collection and Dissemination System**
- ❑ **Real Time Rain-Fall and River Flow Data Collection**
- ❑ **Weather Radar Prediction**
- ❑ **Modern System of Transmission of Flood Forecasts**

### Improved Early Flood Warning System :

- ❑ **Based on effective Flood Forecasts, early Flood Warning is issued**
- ❑ **Reliable interaction between all related Flood Control and Relief Agencies**
- ❑ **In-time warning and evacuation arrangements by Provincial Relief Departments, District Administrations & Pakistan Army**

# Irrigation Network of Pakistan

The Irrigation System of Pakistan is the largest integrated irrigation network in the world, serving 34.5 million acres of contiguous cultivated land. The system is fed by the waters of the Indus River and its tributaries.

## Salient Features of Irrigation Network

<u>Structure</u>	<u>No.</u>
Major Storage Reservoirs	3
Barrages	19
Inter-River Link Canals	12
Independent Irrigation Canal Commands	43

# Investment on Flood Protection Works (1977- June 2002)

(Rs million)

<b>Name of Province/Federal Line Agency</b>	<b>Investment</b>	<b>Percentage of Total Investment</b>
<b>Punjab</b>	<b>4,076</b>	<b>44.34%</b>
<b>Sindh</b>	<b>3,308</b>	<b>35.99%</b>
<b>NWFP</b>	<b>940</b>	<b>10.23%</b>
<b>Balochistan</b>	<b>678</b>	<b>7.38%</b>
<b>FATA</b>	<b>95</b>	<b>1.03%</b>
<b>Northern Areas</b>	<b>73</b>	<b>0.80%</b>
<b>AJ &amp; Kashmir</b>	<b>22</b>	<b>0.23%</b>
<b>Total:</b>	<b>9,192</b>	<b>100%</b>

# Existing Flood Management Facilities (Structural)

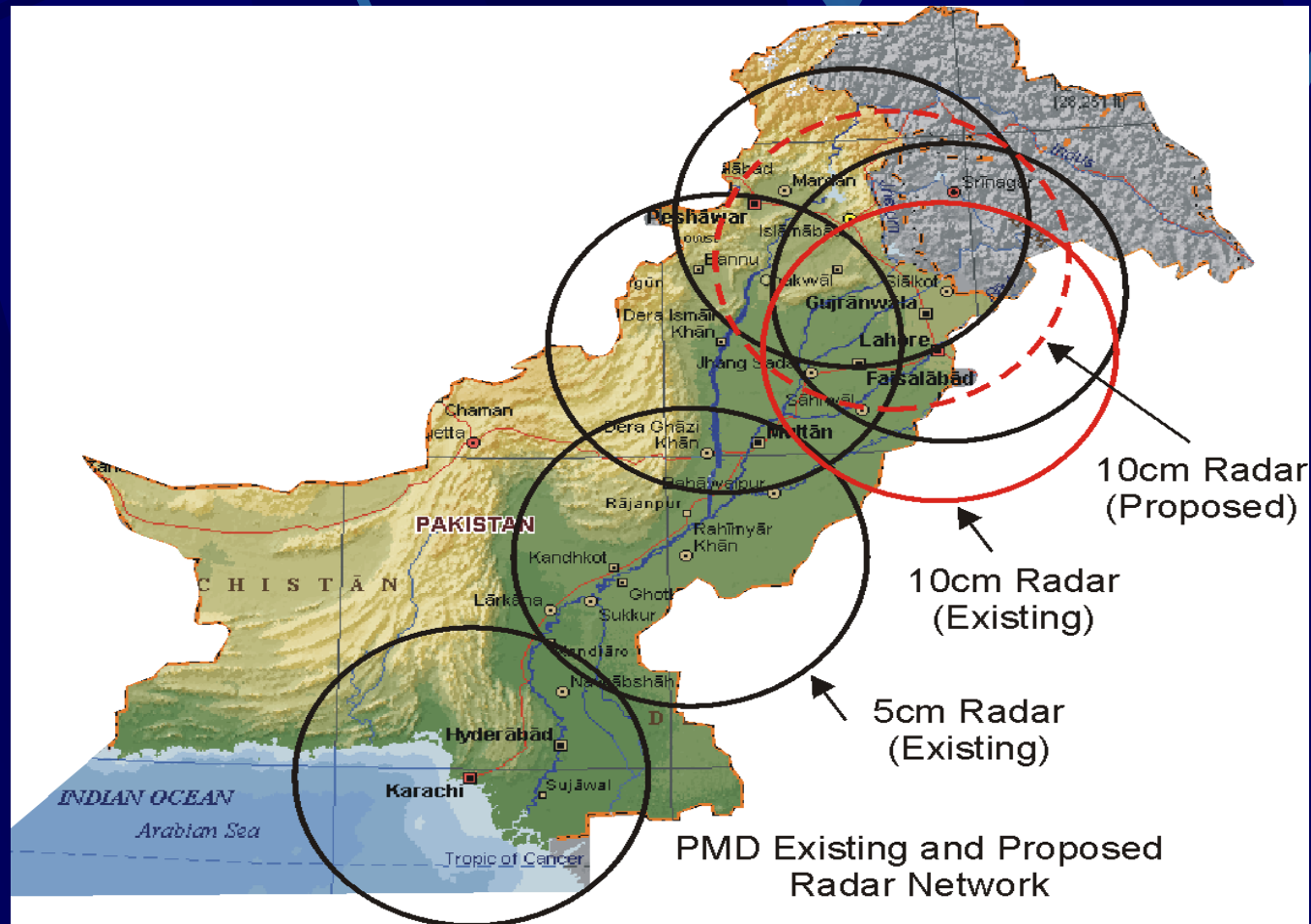
<b>Province</b>	<b>Embankments (Kilometers)</b>	<b>Spurs (In number)</b>
<b>Punjab</b>	<b>2,276</b>	<b>365</b>
<b>Sindh</b>	<b>2,106</b>	<b>36</b>
<b>NWFP</b>	<b>82.50</b>	<b>176</b>
<b>Balochistan</b>	<b>129</b>	<b>Nil</b>
<b>Total:</b>	<b>4,593.50</b>	<b>577</b>



# Existing Flood Management Facilities (Non-Structural)

- ❑ **National Flood Forecasting Division (NFFD), Lahore**
- ❑ **10-CM QPM Weather Radar System at Lahore, 5.36-CM Weather Radar at Sialkot, 5 CM Weather Radars at Karachi, Rahim Yar Khan, D.I.Khan and Islamabad**
- ❑ **69-HF Radio Communication sets for effective data transmission**
- ❑ **Provision of Meteoroburst Telecommunication System for improved gauging & telemetry.**
- ❑ **Mapping of flood prone areas along the Indus River and its major tributaries using GPS techniques and related development of a Digital Terrain Model (DTM)**
- ❑ **Development of Indus Basin Flood Forecasting System (FFS) through Rainfall-Runoff Computer modelling**

# Existing & Proposed Weather Radar Network



## National Flood Protection Plan (I & II)

**Since its establishment in 1977 Federal Flood Commission has prepared & implemented two 10 years National Flood Protection Plans. Details are depicted in the succeeding two slides**

# National Flood Protection Plan-I (1978-87)

## Normal Annual Development Program

- |  |                         |
|--|-------------------------|
| ❑ <b>Cost</b>  | <b>Rs 1,730 million</b> |
| ❑ <b>No. of Projects<br/>(in all the four Provinces)</b> | <b>350</b>              |
| ❑ <b>Funding Agency</b>                                  | <b>100% by GOP</b>      |

## National Flood Protection Plan-II (1988-98)

### Normal Annual Development Program

<input type="checkbox"/>	<b>Cost</b>	<b>Rs 2,541 million</b>
<input type="checkbox"/>	<b>No. of Schemes Completed</b>	<b>170</b>
<input type="checkbox"/>	<b>Funding Agency</b>	<b>100% by GOP</b>

### Flood Protection Sector Project-I (FPSP-I)

<input type="checkbox"/>	<b>Cost</b>	<b>Rs 4,860 million</b>
<input type="checkbox"/>	<b>No. of schemes completed</b>	<b>257</b>
<input type="checkbox"/>	<b>Foreign funding (ADB)</b>	<b>US \$ 131.07 million (80% ADB, 20 % GOP)</b>

# National Flood Protection Plan-III (1998-2012)

## Component Projects

<u>Name</u>	<u>Cost (Rs in million)</u>	<u>Completion</u>
❑ <b>Second Flood Protection Sector Project (Phase-I, 2002-2004)</b>	<b>4,614</b>	<b>2004</b>
❑ <b>Second Flood Protection Sector Project (Phase-II)</b>	<b>3,386</b>	<b>2008</b>
❑ <b>Third Flood Protection Sector Project</b>	<b>6,000</b>	<b>2012</b>
❑ <b>Emergent Flood Control Program</b>	<b>2,400</b>	<b>On going since 1977</b>
❑ <b>Hill Torrents Flood Management (Phase-I)</b>	<b>8,600</b>	<b>2012</b>

(Details of on-going projects to follow)

## On-going Protects

- ❑ **Normal Annual Development Programme**
- ❑ **Second Flood Protection Sector Project**

# **Normal Annual Development Programme**



NORMAL ANNUAL DEVELOPMENT PROGRAMME  
ALLOCATIONS DURING THE LAST FIVE (5) YEARS  
(Rs in million)

<b>S. No.</b>	<b>Year</b>	<b>Allocation</b>
<b>1.</b>	<b>1998-1999</b>	<b>392.00</b>
<b>2.</b>	<b>1999-2000</b>	<b>300.00</b>
<b>3.</b>	<b>2000-2001</b>	<b>250.00</b>
<b>4.</b>	<b>2001-2002</b>	<b>78.00</b>
<b>5.</b>	<b>2002-2003</b>	<b>75.00</b>

**NORMAL ANNUAL DEVELOPMENT PROGRAMME  
PROVINCE-WISE BREAKUP OF ALLOCATIONS DURING  
THE LAST FIVE (5) YEARS  
(Rs in million)**

<b>PROVINCE/ AGENCY</b>	<b>1998- 1999</b>	<b>1999- 2000</b>	<b>2000- 2001</b>	<b>2001- 2002</b>	<b>2002- 2003</b>	<b>TOTAL</b>
<b>Punjab</b>	<b>176.400</b>	<b>135.000</b>	<b>90.000</b>	<b>35.000</b>	<b>30.100</b>	<b>466.800</b>
<b>Sindh</b>	<b>121.520</b>	<b>93.000</b>	<b>62.000</b>	<b>23.535</b>	<b>19.380</b>	<b>319.435</b>
<b>NWFP</b>	<b>43.120</b>	<b>33.000</b>	<b>22.000</b>	<b>8.315</b>	<b>10.780</b>	<b>117.215</b>
<b>Balochistan</b>	<b>31.360</b>	<b>24.000</b>	<b>16.000</b>	<b>5.650</b>	<b>7.840</b>	<b>84.850</b>
<b>FATA</b>	<b>11.760</b>	<b>9.000</b>	<b>6.000</b>	<b>2.8000</b>	<b>2.940</b>	<b>32.500</b>
<b>Northern Areas</b>	<b>3.920</b>	<b>3.000</b>	<b>52.000</b>	<b>51.200</b>	<b>0.980</b>	<b>111.100</b>
<b>AJ &amp; K</b>	<b>3.920</b>	<b>3.000</b>	<b>2.000</b>	<b>1.200</b>	<b>0.980</b>	<b>11.100</b>
<b>TOTAL:</b>	<b>392.000</b>	<b>300.000</b>	<b>250.000</b>	<b>128.000</b>	<b>73.000</b>	

## Normal Annual Development Programme RELEASE CRITERIA

Since July 2000 under the new system of Financial Control & Budgeting introduced by M/O Finance, releases are made in three (3) installments as under:

- (i) 45% for 1st six months upto December 31.
- (ii) 25% upto March 31.
- (iii) 30% upto June 30.

All releases are approved by M/O Finance subject to furnishing of utilization accounts of previous releases

## Percentage Budget Allocations

<b>Province/Agency</b>	<b>% age</b>
<b>Punjab</b>	<b>45%</b>
<b>Sindh</b>	<b>31%</b>
<b>NWFP</b>	<b>11%</b>
<b>Balochistan</b>	<b>08%</b>
<b>FATA</b>	<b>03%</b>
<b>Northern Areas</b>	<b>01%</b>
<b>AJ &amp; K</b>	<b>01%</b>
	<b>-----</b>
<b>Total:</b>	<b>100%</b>

**NORMAL ANNUAL DEVELOPMENT PROGRAMME  
PROVINCE-WISE POSITION OF RELEASES DURING  
THE LAST FIVE (5) YEARS  
(Rs in million)**

<b>PROVINCE/ AGENCY</b>	<b>1998- 1999</b>	<b>1999- 2000</b>	<b>2000- 2001</b>	<b>2001- 2002</b>	<b>2002- 2003</b>	<b>TOTAL</b>
<b>Punjab</b>	<b>132.400</b>	<b>125.820</b>	<b>22.500</b>	<b>24.710</b>	<b>13.545</b>	<b>318.975</b>
<b>Sindh</b>	<b>111.060</b>	<b>93.000</b>	<b>15.500</b>	<b>23.535</b>	<b>8.721</b>	<b>251.816</b>
<b>NWFP</b>	<b>32.340</b>	<b>33.000</b>	<b>5.500</b>	<b>5.820</b>	<b>4.851</b>	<b>81.511</b>
<b>Balochistan</b>	<b>23.52</b>	<b>24.000</b>	<b>4.000</b>	<b>Nil</b>	<b>-</b>	<b>51.520</b>
<b>FATA</b>	<b>10.260</b>	<b>9.000</b>	<b>1.500</b>	<b>1.960</b>	<b>-</b>	<b>22.720</b>
<b>Northern Areas</b>	<b>3.420</b>	<b>3.000</b>	<b>50.500</b>	<b>50.000</b>	<b>-</b>	<b>106.920</b>
<b>AJ &amp; K</b>	<b>3.420</b>	<b>3.000</b>	<b>0.500</b>	<b>Nil</b>	<b>0.441</b>	<b>7.361</b>
<b>Total:</b>	<b>316.420</b>	<b>290.820</b>	<b>100.000</b>	<b>106.025</b>	<b>27.558</b>	<b>840.823</b>

**NORMAL ANNUAL DEVELOPMENT PROGRAMME  
STATUS OF ALLOCATION VS RELEASES FOR 2002-2003  
(Rs in million)**

<b>PROVINCE/ AGENCY</b>	<b>ALLOCATION</b>	<b>RELEASES OF IST HALF of 2002-2003 (45%)</b>	<b>REMARKS</b>
<b>Punjab</b>	<b>30.100</b>	<b>13.545</b>	<b>45% of total allocation upto 31-12-2002</b>
<b>Sindh</b>	<b>19.380</b>	<b>8.721</b>	<b>45% of total allocation upto 31-12-2002</b>
<b>NWFP</b>	<b>10.780</b>	<b>4.851</b>	<b>45% of total allocation upto 31-12-2002</b>
<b>Balochistan</b>	<b>7.840</b>	<b>---</b>	<b>Case for release of Rs 3.530 million is under process with M/O Water &amp; Power</b>
<b>FATA</b>	<b>2.940</b>	<b>---</b>	<b>Utilization Account awaited for previous year releases</b>
<b>Northern Areas</b>	<b>0.980</b>	<b>---</b>	<b>Case for release of funds for Rs 0.441 million is under process</b>
<b>AJ &amp; K</b>	<b>0.980</b>	<b>0.441</b>	<b>Utilization Account is awaited for Rs 0.441 million is awaited</b>
<b>FFC</b>	<b>2.000</b>	<b>0.466</b>	<b>-</b>
<b>Total:</b>	<b>75.000</b>	<b>27.558</b>	<b>-</b>

**NORMAL ANNUAL DEVELOPMENT PROGRAMME  
PRIORITY WORKS BEING EXECUTED PRESENTLY**

<b>PROVINCE &amp; SCHEME TITLE</b>	<b>ESTIMATED COST (Rs Million)</b>	<b>REMARKS</b>
<b><u>Punjab</u></b> Protection of C-J Link outfall structure and Village Shergarh from erosion of river Jhelum	<b>78.000</b>	<b>On-going scheme from last year. Punjab Govt. intends to utilize its share on this scheme</b>
<b><u>Sindh</u></b> Constructing T-Head Spur at S.M.Bund mile 135/7 and 3 No. studs at S.M. Bund mile 136/1, 136/2 and 136/3 (Bhanote Site)	<b>85.209</b>	<b>On-going scheme from last year. Sindh Govt. intends to utilize its share on this scheme</b>
<b><u>NWFP</u></b>		
1. Protection of agricultural lands, Adazai bridge from flood action of Adezai river at Mamu Banda	<b>4.900</b>	<b>On-going from last year</b>
2. Flood embankment for protection of village Matora from Lora nullah floods in District Lakki Marwat	<b>3.000</b>	<b>Under process of approval</b>
3. Flood protection works for village Tipra, District Haripur	<b>2.100</b>	<b>Under process of approval</b>
4. Flood protection work for village Palosai Mughdarzai against flood action of Palosai nullah	<b>1.560</b>	<b>Under process of approval</b>

**NORMAL ANNUAL DEVELOPMENT PROGRAMME  
PRIORITY WORKS BEING EXECUTED PRESENTLY**

<b>PROVINCE &amp; SCHEME TITLE</b>	<b>ESTIMATED COST (Rs Million)</b>	<b>REMARKS</b>
<b><u>Balochistan</u></b>		
1. Flood protection of agricultural lan/abadies along the banks of Nikoi and Purshakai Mandas in Tarkha Badini areas in District Killa Saifullah	0.440	Under process for approval
2. Flood protection of agricultural land/abadie in Killi Kari Wari Rude Jogezai area in District Killa Saifullah	1.300	Under process for approval
3. Flood protection of Ghazni Viala, District Zhob	1.000	Under process for approval
4. Flood protection of agricultural lans/abadies of Karezai and Urgus village in Muslim Bagh area of Killa Saifullah	2.000	Under process for approval
5. Flood protection of Machi Kho village, District, Sibi	0.967	Under process for approval
6. Flood protection of Dera Bugti Town, District Dera Bugti	0.791	Under process for approval



NORMAL ANNUAL DEVELOPMENT PROGRAMME  
PRIORITY WORKS BEING EXECUTED PRESENTLY

PROVINCE & SCHEME TITLE	ESTIMATED COST (Rs Million)	REMARKS
<u>FATA</u> Reclamation of land and flood protection of land and village abadies in different areas of FATA	5.900	On-going from last year
<u>Northern Areas</u> 1. Construction of flood protective bund at Surmo  2. Construction of flood protective bund at Mamochunmo Shigar Skardu (Phase-I)	4.380  2.000	On-going from last year  On-going from last year
<u>AJ &amp; K</u> 1. Flood protection of agricultural land, playground & Boys Degree College Trarkal due to erosion of Tarakhel Nullah	0.726	Under process for approval