

## **IRRIGATION**

Irrigation sector under province's medium term development framework covers the programs and projects relating to the irrigation, drainage, groundwater, flood management and small dams development sub sectors.

### **SECTOR OVERVIEW**

Irrigated agriculture is the major determinant of economic growth potential of the province as it accounts for 26 % of the GDP and caters for over 40 % of the province's work force. Over 90 % of agricultural output in Punjab comes from farmlands irrigated by one of the largest contiguous irrigation systems in the world. The colossal irrigation conveyance network is serving 21 million acres (8.4 million hectare) cultivable command area with cropping intensities generally exceeding 120%. The vast irrigation system in the province, however, faces major irrigation and drainage challenges with serious economic, environmental and social implications. Hydraulic infrastructure has deteriorated and large deficits in (O&M) maintenance have led to sub-optimal service delivery levels characterized by low water conveyance efficiencies and inequitable water deliveries. Replacement cost for Punjab Irrigation infrastructure including barrages and conveyance network is estimated as Rs. 1600 billion whereas estimated cost for rehabilitation and deferred maintenance need is around Rs. 170 billion. Consequently, development goals for the sector encompass rehabilitation, improvement and modernization of irrigation network and allied infrastructure along with system-wide institutional reforms aiming to enhance reliability, adequacy and timeliness of irrigation supplies ensuring system's integrity and sustainability through improved management and service delivery levels.

### **ISSUES**

Key issues of Punjab's irrigation sector are:-

- (i) Mounting water shortages, which have further accentuated in wake of increasing effects of climate change and resultant floods and droughts.
- (ii) Irrigation and drainage infrastructure has deteriorated overtime due to a combination of age, chronic under-funding of

- maintenance and repair (M&R), and lack of appropriate asset management planning.
- (iii) Gaps in meeting financial sustainability of the system owing to low recovery of *abiana*, inefficient operational regimes, and low M&R funding.
  - (iv) Non-transparent water entitlements and distribution.
  - (v) Lack of participatory approach in operations, maintenance and management of irrigation services leading to inefficiencies, inequities and lack of ownership by users.
  - (vi) Imprudent and inefficient utilization and management of groundwater.

## **VISION**

Long term vision for Punjab's Irrigation Sector is to provide adequate, equitable and reliable irrigation supplies to the cultivable lands of Punjab aiming at enhanced agricultural productivity with focus on broad based institutional reforms.

## **POLICY**

a) Irrigation Department has recently prepared draft "Punjab Water Policy (2017)" which is under process for approval by Government. Overall objective of the Punjab's Water Policy is to:

***"Provide for sustainable management and development of the available water resources (surface, groundwater, and wastewater) taking stock of all uses of water i.e. irrigated agriculture, domestic, civic, industrial and environment over entire geographic regions i.e. canal commands in Indus basin, rain-fed areas and crop zones outside Indus basin through equitable water allocations and efficient management and development."***

Specific pillars supporting provincial water policy are to:

- Increase water availability
- Manage groundwater abstraction
- Improve water quality
- Enforce drinking water and sanitation standards
- Adapt to climate change, floods and droughts
- Maintain environmental safety of the land resource
- Rigorously pursue demand management

- Improve water governance
- Ensure financial sustainability
- Adroitly address trans-boundary issues
- Develop knowledge database and water informatics

**b)** Further, Irrigation Department since 2014 has adopted the approved policy for construction and maintenance of flood protection works in Punjab. In this regard, an Act to regulate construction works in flood plains has also been notified in the Punjab Gazette (April 2016).

Main objectives of this Act / Policy are as under:

- Each flood protection works will be classified according to hazard potential level i.e. flooding and damages likely to occur in case of failure.
- All new flood protection works shall be undertaken after detailed evaluation of the need, geometry, layout, design, cost-benefit analysis and likely impacts on existing flood protection works.
- Hydraulic modelling studies aiming to determine optimum siting, configuration and layouts of flood protection works shall be conducted to maximize efficacy and sustainability of proposed engineering solutions.
- Protective works related to flood-hit villages, crops and orchards and erosion protection of agricultural lands shall be undertaken by the local government concerned in the light of findings of the post-2010 Judicial Flood Commission appointed by Lahore High Court.
- Existing privately owned flood protection works causing serious obstruction in the flood plain shall be removed immediately.
- Execution of flood protection works by other Government departments and individuals shall be subject to permission of Irrigation Department.

c) Irrigation Department has also prepared a draft “Punjab Ground Water Protection, Regulation and Development Act (2017)” and is in the process of approval by the Government. The salient features of the proposed Act are as under:

- “Punjab Ground Water Commission” will be established to develop “Groundwater Management Plan” in consultation with major stakeholders to be notified in the Official Gazette. The plan includes
- Identification of critical area with comprehensive description.
- Physical map of the area.
- Complete description of the aquifer, including groundwater levels, quantitative and qualitative details.

- Past, present and projected water availability, demand and actual uses.
- Share of present and past availability and use of ground water.
- Extent and methods of recharge of aquifer.
- Monitoring and management of ground water level and quantity
- Mitigation of saline water intrusion risk.
- Distance of new tube wells from existing wells.
- Extent of conjunctive use of ground water and surface water
- Irrigation efficiency and water saving strategy

## **SECTORAL OBJECTIVES**

- Provide adequate, equitable and reliable irrigation supplies to the cultivable lands,
- Appropriate budget allocation for up-gradation /extension of flood management structures,
- Construction of new dams (small to medium scale) to provide irrigation supplies for barani areas,
- Lining of irrigation channels to ensure irrigation supplies at tail reaches,
- Desilting /remodelling of drains to absorb flood peaks, and
- Upgradation and modernization of irrigation hydraulic structures to absorb flood peaks.

## **SECTORAL STRATEGIES UNDER MTDF (2017-20)**

Key strategies underpinning the sector's development outlay under province's MTDF (2017-18 to 2019-20) are to:-

- Implement structural measures for optimal utilization of surface water resources.
- Plan effective utilization of public investments for modernization of irrigation infrastructure
- Develop and practice holistic approaches to optimize surface and groundwater use efficiencies with the aim to maximize agricultural productivity of irrigated lands.
- Mitigate environmental degradation and groundwater mining
- Extend broad-based institutional reforms already initiated in the province to achieve improved service delivery targets.

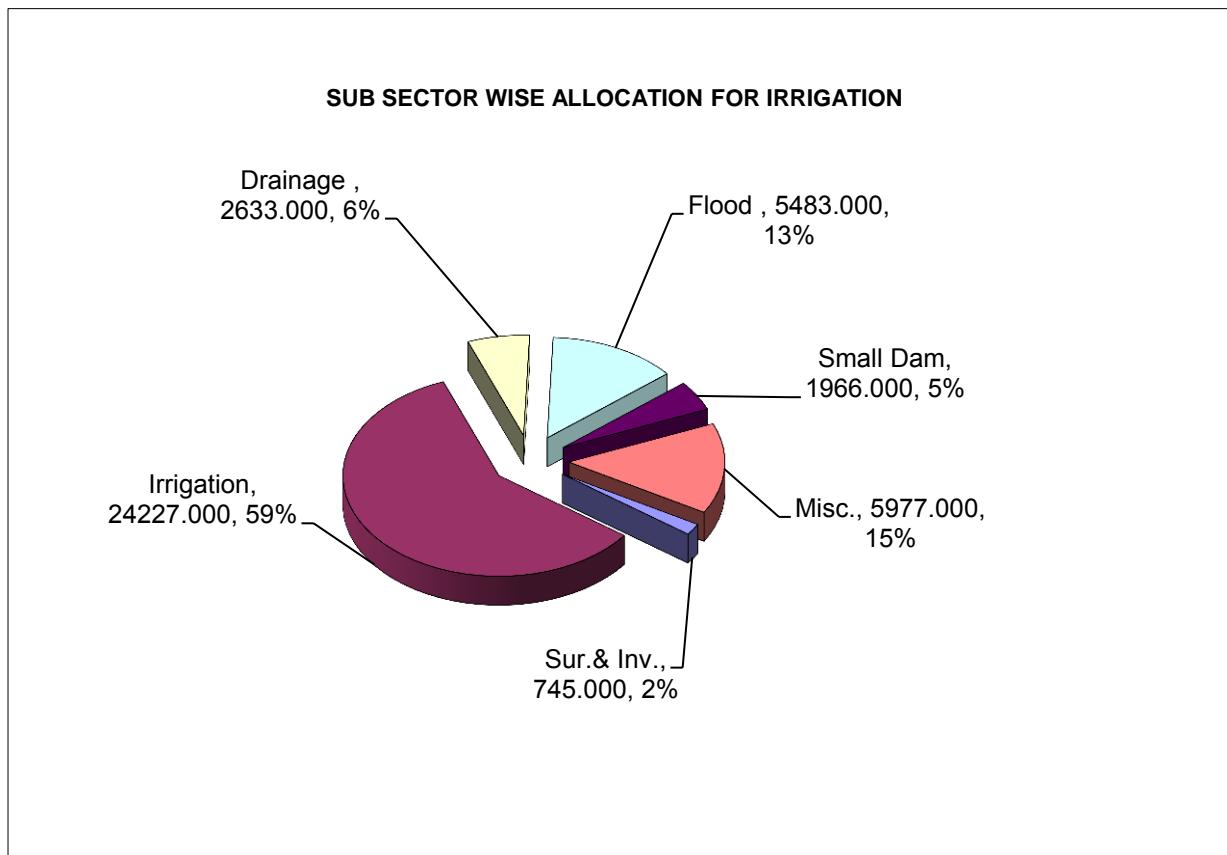
- Extend and improve drainage, flood protection, hill torrent management and command area development interventions in riverine and rain-fed (barani) areas.

## **STRATEGIC INTERVENTIONS**

- Jabalpur Irrigation Project, costing Rs. 26,000 million assisted by Asian Development Bank.
- Construction of Intake and Allied structures on River Ravi costing over Rs.5.0 billion for augmenting / supplying drinking water to Lahore Metropolitan area.
- Construction of Kas Umar Khan Canal system costing Rs. 2,500 million in Tehsil Isa Khel District Mianwali.
- Management of Flood Protection of Deg Nullah (Channelization and enhancing capacity of Basantar Nullah) costing Rs.4975 million.
- Construction of Papin dam (land acquisition component) costing Rs. 1220 million.
- Construction of Dadoacha Dam costing Rs.4,000 million.
- Remodelling of SMB Link Canal and Enhancing Capacity of Mailsi Syphon costing Rs.4034 Million
- Greater Thal Canal Project Phase-II (Chobara Branch) costing Rs.6261 million

## **SALIENT FEATURES OF SECTOR'S MTDF (2017-20)**

Irrigation sector's total outlay for the year 2017-18 is planned as Rs.41.031 billion. This allocation shows no increase from ADP 2016-17 and constitutes about 6.83% of the core ADP (2017-18) budget under the MTDF 2017-20. Project outlays for the sector in years 2017-18, 2018-19 and 2019-20 are Rs.41.031 billion, 53.889 billion and Rs.34.002 billion respectively. Total 173 Nos. schemes are included in MTDF 2017-18 (out of which 96 Nos. are on-going and 77 Nos. are new schemes) have been targeted to be executed during 2017-18 with an allocation of Rs. 28.300 billion (69 %) for on-going and Rs. 12.731 billion (31 %) to new schemes respectively. 45 Nos. on-going and 24 Nos. new schemes will be completed during 2017-18.



### **MILESTONES ACHIEVED DURING FY 2016-17**

<b>Sub sector</b>	<b>Achievements/ Completed/Cost</b>
New Khanki Barrage Construction Project	Works Completed with cost of Rs. 23442 Million
Punjab Barrages Improvement Phase-II Project (PBIP-II) - Jinnah Barrage	Works Completed with cost of Rs. 12678 Million
Lower Bari Doab Canal Improvement Project	Works Completed with cost of Rs. 29832 Million
Construction of Arrar Mughlan Dam in District Chakwal	Works Completed with cost of Rs. 829 Million
Rehabilitation of Bahishty Disty with System	Works Completed with cost of Rs. 335 Million
Remodeling and Extension of Tayyab Drain	Works Completed with cost of Rs. 1422 Million
Providing Drainage System within Command Area of 3-R Abasia Canal.	Works Completed with cost of Rs. 754 Million

Channelization of Aik Nullah and Improving Drainage System in Distt Sialkot	Works Completed with cost of Rs.727 Million
Construction of Flood Protection Works along Rayya Flood Bund at RD 32+000 to Protect village Daud Khas district Narowal	Works Completed with cost of Rs. 397 Million
Construction of Flood protection works to protect BRBD Link Canal from RD 285+300 to 300+000/L against erosion of the River Ravi	Works Completed with cost of Rs. 404 Million
Construction of Nutkani Flood Carrying Channel RD 0+000 - 21+000 in District Dera Ghazi Khan	Works Completed with cost of Rs. 652 Million
Construction of Spur at Basti Rindan	Works Completed with cost of Rs. 790 Million
Construction of Sowrra Dam Project in District Attock	Works Completed with cost of Rs. 915 Million
Construction of Pindori Dam	Works Completed with cost of Rs. 655 Million
Rehabilitation of Ahmadpur Branch System	30 % Works Completed
Selective Lining of Irrigation Channels in Punjab Phase-III	40 % Works Completed
Rehabilitation of Trimmu Sidnai Link Canal	40 % Works Completed
Rehabilitation of Degi Distributary with System	10 % Works Completed
Flood protection of Sialkot against Aik, Bhed, and Palkhu nullah	45 % Works Completed
Flood protection of Kamoki and adjoining areas	70 % Works Completed

Management of Hill Torrents in DG Khan Irrigation Zone Sori Lund, Vidore, Mithawan, Kaha and Chachar (Sori Lund Hill Torrents)	70 % Works Completed
Construction of Flood Bund along River Indus from Rakh Bagh Wala to Bait Wagwar Kot Mithan District Rajanpur RD 0-275	15 % Works Completed

### **NEW INITIATIVES IN ADP 2017-18**

<b>Sr. No.</b>	<b>Project Name</b>	<b>Total Project Cost Rs. in million</b>
1	Jalalpur Irrigation Project	26,000
2	Management of Flood Protection of Deg Nullah (Channelization and enhancing capacity of Basantar Nullah)	7,700
3	Construction of Intake and Allied structures on River Ravi for augmenting /supplying drinking water to Lahore Metropolitan area	5,000
4	Construction and Rehabilitation of Kas Umar Khan Canal system Tehsil Isa Khel District Mianwali	2,500
5	Channelization of Deg Diversion Channel	2,050
6	Construction of Papin Dam (Land Acquisition and command Ared Development Punjab Component)	1,220
7	Rehabilitation of Hakra Branch from RD 0+000 to 286+920	850
8	Construction of Solid Stone studs/ spurs on the Right Side of river Chenab Near Villages Muridwala, Sikdey . Tehsil Kot Momin district Sargodha	750
9	Extending Cantonment flood bund downstream G.T. Rooad bridge along right bank of River Jhelum	564
10	Protecting Shehr Sultan flood bund at RD 20+000 to RD 32+000 from erosive action of river Chenab to save the abadies Mouza Bindah Ishaq and Faizpur.	528

## MTDF TARGETS FOR FY 2017-18

<b>Sectoral Initiatives</b>	<b>Targets (FY 2017-18)</b>
Rehabilitation and up gradation of Trimmu Barrage, Punjab Head Works Sulemanki	50 % Completion of project
Disaster & Climate Resilience Improvement Project (DCRIP)	40 % Completion of project
Pakpatan canal and sulemanki Barrage Improvement Project (PCSBIP)	75 % Completion of Civil work
Flood Emergency Reconstruction and Resilience Project (Irrigation Components)	80 % Completion of Civil work
Greater Thal Canal Project Phase-II (Chobara with System)	20 % Completion of Civil work
Flood protection of Sialkot against Aik, Bhed, and Palkhu nullah	55 % Completion of Civil work
Selective Lining of Irrigation Channels in Punjab Phase-III	100 %Completion of Civil work
Rehabilitation of Trimmu Sidnai Link Canal	50 % Completion of works
Rehabilitation of Ahmadpur Branch System	40 % Completion of Works
Rehabilitation of Degi Distributory with System	25 % Completion of Works
Flood protection of Sialkot against Aik, Bhed, and Palkhu nullah	55 % Completion of Works
Flood protection of Kamoki and adjoining areas	90 % Completion of Works
Management of Hill Torrents in DG Khan Irrigation Zone Sori Lund, Vidore, Mithawan, Kaha and Chachar (Sori Lund Hill Torrents)	90 % Completion of Works
Construction of Chahan Dam Project	100 % Completion of Works
Construction of Mohata Dam	75 % Completion of Works
Construction of Small Dams in District Attock Phase-II Shahbazpur, Tajabara and Sadrial	45 % Completion of Works

Dams (Revised)	
Construction of Tamman Dam	80 % Completion of Works
Construction of Small Dams in District Chakwal Phase-II (Dhok Hum, Mundi Dam, Dhok Jhang and Uthwal / Lakhwal Dam) (Revised)	75 % Completion of Works

### **TREND OF ALLOCATIONS**

**(Millions PKR)**

<b>Year</b>	<b>Original Allocation</b>	<b>Revised Allocation</b>
2010-11	11,005	9,735
2011-12	10,850	10,391
2012-13	11,250	11,290
2013-14	22,401	23,000
2014-15	35,572	35,000
2015-16	35,370	35,367
2016-17	41,000	34,890

**MTDF 2017-20**  
**IRRIGATION: SUMMARY**  
**DEVELOPMENT PROGRAMME 2017-18**

Sub-Sector	Local	F. Aid	Total
<b>On-going Schemes</b>			
Buildings	180.000	0.000	180.000
Drainage	830.000	0.000	830.000
Flood Works	3,193.000	0.000	3,193.000
Foreign Aided Projects	1,735.000	15,845.000	17,580.000
Irrigation	4,055.000	0.000	4,055.000
Miscellaneous	350.000	0.000	350.000
Small Dams	1,566.000	0.000	1,566.000
Survey Investigation & Research	546.000	0.000	546.000
<b>Total: On-going Schemes</b>	<b>12,455.000</b>	<b>15,845.000</b>	<b>28,300.000</b>
<b>New Schemes</b>			
Buildings	140.000	0.000	140.000
Drainage	1,803.000	0.000	1,803.000
Flood Works	2,290.000	0.000	2,290.000
Foreign Aided Projects	15.000	155.000	170.000
Irrigation	2,402.000	0.000	2,402.000
Khadim e Punjab Kissan Package	5,000.000	0.000	5,000.000
Local Development Programme	296.000	0.000	296.000
Prime Minister's SDGs Programme	31.000	0.000	31.000
Small Dams	400.000	0.000	400.000
Survey Investigation & Research	199.000	0.000	199.000
<b>Total: New Schemes</b>	<b>12,576.000</b>	<b>155.000</b>	<b>12,731.000</b>
<b>Total (Ongoing + New + ODP)</b>	<b>25,031.000</b>	<b>16,000.000</b>	<b>41,031.000</b>

**DEVELOPMENT PROGRAMME 2018-19**

Sub-Sector	Local	F. Aid	Total
<b>On-going Schemes</b>			
Buildings	198.000	0.000	198.000
Drainage	913.000	0.000	913.000
Flood Works	3,512.300	0.000	3,512.300
Foreign Aided Projects	1,908.500	17,429.500	19,338.000
Irrigation	4,460.500	0.000	4,460.500
Miscellaneous	385.000	0.000	385.000
Small Dams	1,722.600	0.000	1,722.600
Survey Investigation & Research	600.600	0.000	600.600
<b>Total: On-going Schemes</b>	<b>13,700.500</b>	<b>17,429.500</b>	<b>31,130.000</b>
<b>New Schemes</b>			
Buildings	154.000	0.000	154.000
Drainage	1,983.300	0.000	1,983.300
Flood Works	2,519.000	0.000	2,519.000
Foreign Aided Projects	16.500	170.500	187.000
Irrigation	2,642.200	0.000	2,642.200
Khadim e Punjab Kissan Package	5,500.000	0.000	5,500.000
Local Development Programme	325.600	0.000	325.600
Prime Minister's SDGs Programme	34.100	0.000	34.100
Small Dams	440.000	0.000	440.000
Survey Investigation & Research	218.900	0.000	218.900
<b>Total: New Schemes</b>	<b>13,833.600</b>	<b>170.500</b>	<b>14,004.100</b>
<b>Total (Ongoing + New + ODP)</b>	<b>27,534.100</b>	<b>17,600.000</b>	<b>45,134.100</b>

**MTDF 2017-20**  
**IRRIGATION: SUMMARY**  
**DEVELOPMENT PROGRAMME 2019-20**

Sub-Sector	Local	F. Aid	Total
<b>On-going Schemes</b>			
Buildings	217.800	0.000	217.800
Drainage	1,004.300	0.000	1,004.300
Flood Works	3,863.530	0.000	3,863.530
Foreign Aided Projects	2,099.350	19,172.450	21,271.800
Irrigation	4,906.550	0.000	4,906.550
Miscellaneous	423.500	0.000	423.500
Small Dams	1,894.860	0.000	1,894.860
Survey Investigation & Research	660.660	0.000	660.660
<b>Total: On-going Schemes</b>	<b>15,070.550</b>	<b>19,172.450</b>	<b>34,243.000</b>
<b>New Schemes</b>			
Buildings	169.400	0.000	169.400
Drainage	2,181.630	0.000	2,181.630
Flood Works	2,770.900	0.000	2,770.900
Foreign Aided Projects	18.150	187.550	205.700
Irrigation	2,906.420	0.000	2,906.420
Khadim e Punjab Kissan Package	6,050.000	0.000	6,050.000
Local Development Programme	358.160	0.000	358.160
Prime Minister's SDGs Programme	37.510	0.000	37.510
Small Dams	484.000	0.000	484.000
Survey Investigation & Research	240.790	0.000	240.790
<b>Total: New Schemes</b>	<b>15,216.960</b>	<b>187.550</b>	<b>15,404.510</b>
<b>Total (Ongoing + New + ODP)</b>	<b>30,287.510</b>	<b>19,360.000</b>	<b>49,647.510</b>
<b>MTDF 2017-20 : Grand Total</b>			<b>135,812.610</b>

## IRRIGATION: SUMMARY

(Million PKR.)

Type / Sub Sector	No. of Schemes	Provision for 2017-18				Projection for 2018-19	Projection for 2019-20
		Capital	Revenue	Foreign Aid	G. Total (Cap+Rev)		
<b><u>ON-GOING SCHEMES</u></b>							
<b>Buildings</b>	3	180.000	0.000	0.000	180.000	468.000	400.000
<b>Drainage</b>	6	830.000	0.000	0.000	830.000	339.000	0.000
<b>Flood Works</b>	26	3,193.000	0.000	0.000	3,193.000	5,034.000	1,980.000
<b>Foreign Aided Projects</b>	10	1,635.000	100.000	15,845.000	17,580.000	9,692.000	4,708.000
<b>Irrigation</b>	25	4,055.000	0.000	0.000	4,055.000	8,819.000	6,003.000
<b>Miscellaneous</b>	3	350.000	0.000	0.000	350.000	393.000	400.000
<b>Small Dams</b>	15	1,566.000	0.000	0.000	1,566.000	2,505.000	200.000
<b>Survey Investigation &amp; Research</b>	8	496.000	50.000	0.000	546.000	731.000	699.000
<b>Total: ON-GOING SCHEMES</b>	<b>96</b>	<b>12,305.000</b>	<b>150.000</b>	<b>15,845.000</b>	<b>28,300.000</b>	<b>27,981.000</b>	<b>14,390.000</b>
<b><u>NEW SCHEMES</u></b>							
<b>Buildings</b>	3	140.000	0.000	0.000	140.000	400.000	200.000
<b>Drainage</b>	9	1,803.000	0.000	0.000	1,803.000	3,613.000	2,295.000
<b>Flood Works</b>	18	2,290.000	0.000	0.000	2,290.000	4,883.000	3,760.000
<b>Foreign Aided Projects</b>	2	10.000	5.000	155.000	170.000	2,700.000	2,700.000
<b>Irrigation</b>	14	2,402.000	0.000	0.000	2,402.000	8,615.000	6,530.000
<b>Khadim e Punjab Kissan Package</b>	1	5,000.000	0.000	0.000	5,000.000	0.000	0.000
<b>Local Development Programme</b>	16	296.000	0.000	0.000	296.000	1,846.470	938.136
<b>Prime Minister's SDGs Programme</b>	6	31.000	0.000	0.000	31.000	0.000	0.000
<b>Small Dams</b>	3	400.000	0.000	0.000	400.000	3,300.000	3,020.000
<b>Survey Investigation &amp; Research</b>	5	199.000	0.000	0.000	199.000	551.000	169.000
<b>Total: NEW SCHEMES</b>	<b>77</b>	<b>12,571.000</b>	<b>5.000</b>	<b>155.000</b>	<b>12,731.000</b>	<b>25,908.470</b>	<b>19,612.136</b>
<b>Grand Total</b>	<b>173</b>	<b>24,876.000</b>	<b>155.000</b>	<b>16,000.000</b>	<b>41,031.000</b>	<b>53,889.470</b>	<b>34,002.136</b>

# IRRIGATION

(Million PKR.)

GS No	Scheme Information Approval Date / Location	Est. Cost	Accum. Exp June,17	Provision for 2017-18			MTDF Projections		Throw fwd Beyond June, 2020
				Cap	Rev	G. Total (Cap+Rev)	2018-19	2019-20	
1	2	3	4	5	6	7	8	9	10

## ON-GOING SCHEMES

### **Buildings**

8078	Improvement of basic Facilities in Small Dams Organization (security arrangements, Construction of offices/Residencies etc)  Approved DDSC 2015/09/18 Attock	321.137	103.137	100.000	0.000	100.000	118.000	0.000	0.000
8079	Construction of Alternate Buildings at Depalpur District Okara (Khanwah canal Division Depalpur).  Approved DDC/DDWP 2015/12/08 Okara	134.855	104.855	30.000	0.000	30.000	0.000	0.000	0.000
8080	Construction of New Campus of Government Engineering Academy Punjab.  Approved PDWP 2016/06/30 Punjab	850.000	50.000	50.000	0.000	50.000	350.000	400.000	0.000
<b>Sub-Total: Buildings</b>		<b>1,305.992</b>	<b>257.992</b>	<b>180.000</b>	<b>0.000</b>	<b>180.000</b>	<b>468.000</b>	<b>400.000</b>	<b>0.000</b>

### **Drainage**

8081	Construction of 12 No. Bridges on drains in Sargodah district  Approved DDSC 2016/07/15 Jhang	176.329	49.329	127.000	0.000	127.000	0.000	0.000	0.000
8082	Improvement of Drainage System in Tehsil Nowshera Virkan  Approved DDSC 2016/12/09 Gujranwala	393.238	73.238	150.000	0.000	150.000	170.000	0.000	0.000
8083	Construction of Side Drain Along M.R.Link from RD 296+000 to 314+000 having Capacity of 3000 Cusecs  Approved DDSC 2014/05/21 Narowal	397.545	235.545	162.000	0.000	162.000	0.000	0.000	0.000
8084	Enhancing Capacity of Charar Drain to Cater for Rain Water of Ring Road (Revised).  Approved PDWP 2014/11/27 Lahore	506.734	319.734	87.000	0.000	87.000	0.000	0.000	0.000
8085	Enhancing capacity of Sheikhupura Drain RD 0+000 to 91+000  Approved PDWP 2016/07/15 Sheikhupura	398.411	79.411	150.000	0.000	150.000	169.000	0.000	0.000
8086	Rehabilitation of Drainage System in District Bahawalnagar  Approved PDWP 2014/12/08 Bahawalnagar	599.176	320.176	154.000	0.000	154.000	0.000	0.000	0.000
<b>Sub-Total: Drainage</b>		<b>2,471.433</b>	<b>1,077.433</b>	<b>830.000</b>	<b>0.000</b>	<b>830.000</b>	<b>339.000</b>	<b>0.000</b>	<b>0.000</b>

### **Flood Works**

8087	Protection of Adyala Village from the Erosive Action of Soan River, District Rawalpindi  Approved DDSC 2017/01/13 Rawalpindi	148.871	24.871	124.000	0.000	124.000	0.000	0.000	0.000
8088	Construction of Flood Bund to Project Agricultural Land and Village abadi to Bhimber along left bank of Nullah Bunuhian in District Jhelum  Approved DDSC 2016/03/2016 Jhelum	84.869	58.869	26.000	0.000	26.000	0.000	0.000	0.000
8089	Restoration of J Head Spur No 3 on Indus between Dhingana and Doaba and Dhingana village & Construction of J-head Spur RD 35+600/L near village Dobba  Approved DDSC 2016/07/01 Mianwali	886.000	100.000	50.000	0.000	50.000	450.000	286.000	0.000

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(Million PKR.)

GS No	Scheme Information Approval Date / Location	Est. Cost	Accum. Exp June,17	Provision for 2017-18			MTDF Projections		Throw fwd Beyond June, 2020
				Cap	Rev	G. Total (Cap+Rev)	2018-19	2019-20	
1	2	3	4	5	6	7	8	9	10
8090	Channelization of Jabba Nullah Tehsil & District Mianwali  Approved PDWP 2016/07/01 Mianwali	695.654	49.654	100.000	0.000	100.000	400.000	146.000	0.000
8091	Protection of Abadies and Infrastructure from Devastation of Chachali Nullah Tehsil Isa Khel Districe Mianwali  Approved DDSC 2015/10/07 Mianwali	303.835	112.835	191.000	0.000	191.000	0.000	0.000	0.000
8092	Channelization of Nullah Broach Tehsil Isa Khel District Mianwali  Approved PDWP 2015/10/07 Mianwali	505.512	214.512	100.000	0.000	100.000	191.000	0.000	0.000
8093	Protection of Bhakhar Flood Bund from erosive action between RD 0+000 to 76+000 to save the Abadies, Agriculture Land & other infrastructure of Bhakkar city  Approved PDWP 2014/12/05 Bhakkar	892.218	498.218	100.000	0.000	100.000	294.000	0.000	0.000
8094	Flood Protection Bund Basti Darbar Hazrat Sultan Bahoo  Approved DDSC 2016/02/04 Jhang	215.884	175.884	40.000	0.000	40.000	0.000	0.000	0.000
8095	Providing River Training Works over river Ravi due to construction of Mal Fatyana Bridge.  Approved PDWP 2015/10/07 Toba Tek Singh	425.620	344.620	81.000	0.000	81.000	0.000	0.000	0.000
8096	Channelization of nullah Bhimber, Gujarat  Approved DDSC 2015/07/01 Gujarat	398.080	139.080	100.000	0.000	100.000	159.000	0.000	0.000
8097	Providing Flood Protection along Right Bank of Chenab River Downstream Qadirabad Barrage.  Approved DDSC 2017/01/13 Mandi Bahauddin	263.306	49.306	50.000	0.000	50.000	164.000	0.000	0.000
8098	Flood protection of Sialkot against Aik, Bhed, and Phalku Nullah  Approved PDWP 2015/06/10 Sialkot	3,974.525	1,822.525	300.000	0.000	300.000	1,000.000	852.000	0.000
8099	Construction of Mole head Spur for protection of Nawani Kot Village and Other Infrastructure.  Approved DDSC 2015/09/15 Sheikhupura	199.088	38.088	161.000	0.000	161.000	0.000	0.000	0.000
8100	Flood protection of Kamoki and adjoining areas  Approved PDWP 2015/09/02 Sheikhupura	2,174.936	1,579.936	200.000	0.000	200.000	395.000	0.000	0.000
8101	Enhancing Capacity of Nullah Bhed and Laila Drain in District Sheikhupura  Approved PDWP 2015/05/26 Sheikhupura	696.122	303.122	100.000	0.000	100.000	293.000	0.000	0.000
8102	Channelization of Deg Nullah (Land Acquisition Punjab Component)  Approved PDWP 2016/11/30 Sheikhupura	3,175.485	2,700.485	100.000	0.000	100.000	375.000	0.000	0.000
8103	Protection of Aurangabad village by Excavating cunnett and constructing Gunda Bund to Change the Main River course at River Ravi  Approved DDC/DDWP 2016/07/15 Sahiwal	149.683	125.683	24.000	0.000	24.000	0.000	0.000	0.000
8104	Remodeling / Restoration of Ghulam Wah flood embankment from RD 3+240 to 45+689 tail  Approved DDSC 2016/12/09 Vehari	129.661	34.661	95.000	0.000	95.000	0.000	0.000	0.000

# IRRIGATION

(Million PKR.)

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				Cap	Rev	G. Total (Cap+Rev)	2018-19	2019-20	
1	2	3	4	5	6	7	8	9	10
8105	Construction of J Head Spur at RD 40 and RD 53 Down Stream Ghazi Ghat Flood Bund  Approved PDWP 2017/01/13 Dera Ghazi Khan	284.586	99.586	185.000	0.000	185.000	0.000	0.000	0.000
8106	Construction of Flood Bund along River Indus from Rakh Bagh Wala to Bait Wagwar Kot Mithan District Rajanpur RD 0-275  Approved PDWP 2016/12/13 Rajanpur	1,645.936	299.936	200.000	0.000	200.000	600.000	546.000	0.000
8107	Management of Hill Torrent / Flood Protection of Rajanpur District  Approved DDSC 2015/06/10 Rajanpur	148.609	100.609	46.000	0.000	46.000	0.000	0.000	0.000
8108	Protecting 1 AR Minor, Area of Lundi Pitafi and Bait Daryai from Hectic Erosive Action of River Indus  Approved DDSC 2016/07/15 Muzaffargarh	355.454	99.454	150.000	0.000	150.000	106.000	0.000	0.000
8109	Protection of Chandar Bhan Flood Bund RD 55+000 to 67+000, Alipur District Muzaffargarh  Approved PDWP 2017/02/21 Muzaffargarh	624.642	49.642	150.000	0.000	150.000	275.000	150.000	0.000
8110	Construction of Flood Embankments and Protection Works along left and right Bank of River Indus for bridge near Mianpur Linkage N-5 Arbi tibba with Rahimyar khan islamabad  Approved PDWP 2015/07/01 Rahim Yar Khan	603.849	455.849	153.000	0.000	153.000	0.000	0.000	0.000
8111	Management of Hill Torrents in DG Khan Irrigation Zone Sori Lund, Vidore, Mithawan, Kaha and Chachar (Sori Lund Hill Torrents)  Approved PDWP 2014/12/08 Dera Ghazi Khan,Rajanpur	2,035.000	1,403.000	300.000	0.000	300.000	332.000	0.000	0.000
8112	Desilting and Strengthening Banks of Drains Construction of Flood Bund Along Drains and Closing / Strengthening Breaches along Nullahs District Narowal, Gujranwala & Sheikhupura  Approved PDWP 2015/06/03 Sheikhupura,Narowal,Gujranwala	613.501	546.501	67.000	0.000	67.000	0.000	0.000	0.000
<b>Sub-Total: Flood Works</b>		21,630.926	11,426.926	3,193.000	0.000	3,193.000	5,034.000	1,980.000	0.000
<b>Foreign Aided Projects</b>									
8113	Punjab Barrages Improvement Phase II Project (PBIP II) Jinnah Barrage  Approved PDWP 2010/12/09 Mianwali	14,855.990	1,429.220	117.000	0.000	117.000	0.000	0.000	0.000
			Local:	0.000	0.000				
			Foreign:	117.000	0.000				
8114	Rehabilitation and up gradation of Trimmu Barrage, Punjab Head Works Sulemanki  Approved PDWP 2014/07/03 Jhang	16,800.000	4,717.000	2,875.000	0.000	2,875.000	4,500.000	4,708.000	0.000
			Local:	175.000	0.000				
			Foreign:	2,700.000	0.000				
8115	New Khanki Barrage Construction Project  Approved PDWP 2009/09/03 Gujranwala	23,442.000	2,070.700	2,735.000	0.000	2,735.000	0.000	0.000	0.000
			Local:	335.000	0.000				
			Foreign:	2,400.000	0.000				
8116	Pakpatan canal and sulemanki Barrage Improvement Project (PCSBIP)  Approved PDWP 2013/08/28 Pakpattan	7,829.187	4,916.187	1,050.000	0.000	1,050.000	500.000	0.000	0.000
			Local:	250.000	0.000				
			Foreign:	800.000	0.000				

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1	2	3	4	5	6	7	8	9	10
8117	Project Preparation of Punjab Irrigated Agriculture Improvement Programme PIAIP (PC II)  Approved PDWP 2013/12/03 Punjab	1,221.007	1,062.000	0.000	132.000	132.000	0.000	0.000	0.000
	Local: 0.000 2.000 Foreign: 0.000 130.000								
8118	Flood Emergency Reconstruction and Resilience Project (Irrigation Components)  Approved ECNEC 2015/07/09 Punjab	6,662.711	1,070.000	4,400.000	0.000	4,400.000	1,192.000	0.000	0.000
	Local: 400.000 0.000 Foreign: 4,000.000 0.000								
8119	Disaster & Climate Resilience Improvement Project (DCRIP)  Approved PDWP 2015/07/09 Punjab	9,151.000	850.000	3,500.000	0.000	3,500.000	3,500.000	0.000	0.000
	Local: 0.000 0.000 Foreign: 3,500.000 0.000								
8120	Rehabilitation of Khadir Feeder, Khadir Disty and Chenab Escape.  Approved PDWP 2016/07/15 Punjab	901.395	240.395	555.000	28.000	583.000	0.000	0.000	0.000
	Local: 55.000 28.000 Foreign: 500.000 0.000								
8121	Engineering Design of Jalalpur Irrigation Project.  Approved PDWP 2015/06/03 Jhelum,Khushab	497.876	180.876	150.000	0.000	150.000	0.000	0.000	0.000
	Local: 20.000 0.000 Foreign: 130.000 0.000								
8122	Lower Bari Doab Canal Improvement Project PC I  Approved PDWP 2007/03/07 Okara,Khanewal,Kasur,Sahiwal	29,832.490	2,531.649	1,968.000	70.000	2,038.000	0.000	0.000	0.000
	Local: 400.000 70.000 Foreign: 1,568.000 0.000								
<b>Sub-Total: Foreign Aided Projects</b>		<b>111,193.656</b>	<b>19,068.027</b>	<b>17,350.000</b>	<b>230.000</b>	<b>17,580.000</b>	<b>9,692.000</b>	<b>4,708.000</b>	<b>0.000</b>

## Irrigation

8123	Rehabilitation of Naushera Disty system  Approved PDWP 2014/07/01 Gujranwala	718.017	569.000	149.000	0.000	149.000	0.000	0.000	0.000
8124	Remodeling of Pindi Bhattian Flood Protection Bund from RD 18000 to 74650  Approved DDSC 2016/12/09 Hafizabad	90.000	80.000	10.000	0.000	10.000	0.000	0.000	0.000
8125	Rehabilitation of BRBD from RD 0+000 to RD 50+000 including flood inlets.  Approved DDSC 2016/07/15 Sialkot	342.497	79.497	50.000	0.000	50.000	213.000	0.000	0.000
8126	Rehabilitation of Muridke Distributary System.  Approved PDWP 2015/06/03 Sheikhupura	749.252	274.252	150.000	0.000	150.000	75.000	0.000	0.000
8127	Construction of Mian Janda Minor, Chak 177/P to Kartar Pura, District Nankana Sahib  Approved DDSC 2015/11/27 Nankana Sahib	279.000	116.000	163.000	0.000	163.000	0.000	0.000	0.000
8128	Remodeling of 3 No. Aqueducts along B.S.Link Canal  Approved PDWP 2014/12/18 Kasur	432.405	225.405	100.000	0.000	100.000	107.000	0.000	0.000
8129	Lining of Malkan Hans minor Disty from RD 0+ 000 to 56+110 Tail.  Approved DDSC 2016/07/15 Pakpattan	111.063	24.063	87.000	0.000	87.000	0.000	0.000	0.000

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				Cap	Rev	G. Total (Cap+Rev)	2018-19	2019-20	
1	2	3	4	5	6	7	8	9	10
8130	Lining of Noor Pur Disty RD 0 to 107037 Approved DDSC 2015/09/02 Pakpattan	128.699	118.699	10.000	0.000	10.000	0.000	0.000	0.000
8131	Concrete lining of Tajwana & Hussainwah Minors in Union Council Dad kamera District Vehari Approved DDC/DDWP 2016/12/09 Vehari	31.541	15.541	16.000	0.000	16.000	0.000	0.000	0.000
8132	Remodeling of SMB Link Canal and Enhancing Capacity of Mailsi Syphon Approved PDWP 2015/02/25 Vehari	4,034.893	499.629	400.000	0.000	400.000	2,049.000	1,991.000	0.000
8133	Lining of Lal Distributory. Approved DDSC 2015/09/02 Dera Ghazi Khan	42.159	4.159	19.000	0.000	19.000	0.000	0.000	0.000
8134	Rehabilitation and lining of Adil Wah disty and its system. Approved PDWP 2016/07/01 Muzaffargarh	480.000	125.000	100.000	0.000	100.000	231.000	100.000	0.000
8135	Concrete Lining of Maggi Magassom Link RD 0 to 58500 Approved PDWP 2014/12/18 Muzaffargarh	434.798	320.798	50.000	0.000	50.000	64.000	0.000	0.000
8136	Rehabilitation of Jatoi Branch RD 0 to 140 (Tail) Approved PDWP 2014/12/08 Muzaffargarh	426.589	200.589	100.000	0.000	100.000	126.000	0.000	0.000
8137	Rehabilitation of Ahmadpur Branch System Approved PDWP 2014/12/08 Bahawalpur	1,762.158	506.158	150.000	0.000	150.000	600.000	506.000	0.000
8138	Rehabilitation of Eastern Sadiqia canal for Restoring its Design capacity in reach RD 0-195 Approved PDWP 2016/12/13 Bahawalnagar	958.286	89.286	100.000	0.000	100.000	369.000	400.000	0.000
8139	Rehabilitation of 6R/Hakra with system Approved DDSC 2016/12/09 Bahawalnagar	393.292	63.292	100.000	0.000	100.000	130.000	100.000	0.000
8140	Rehabilitation of 7R/Hakra with system Approved DDSC 2016/12/09 Bahawalnagar	395.595	49.995	100.000	0.000	100.000	146.000	100.000	0.000
8141	Rehabilitation of Degi Distributory with System Approved PDWP 2016/12/27 Rahim Yar Khan	1,145.107	74.107	100.000	0.000	100.000	500.000	416.000	55.000
8142	Rehabilitation of Ahmadpur Lamma disty System Approved PDWP 2014/12/18 Rahim Yar Khan	937.958	182.958	100.000	0.000	100.000	300.000	285.000	70.000
8143	Selective Lining of Irrigation Channels in Punjab Phase III Approved PDWP 2015/06/20 Punjab	3,500.000	1,354.000	1,000.000	0.000	1,000.000	1,146.000	0.000	0.000
8144	Greater Thal Canal Project Phase-II (Chobara Branch) Approved PDWP 2016/01/05 Bhakkar,Mianwali,Layyah,Khushab	6,261.701	699.701	500.000	0.000	500.000	1,500.000	1,500.000	2,062.000
8145	Land Acquisition for jalapur Irrigation Project Approved PDWP 2016/01/05 Khushab,Jhelum	2,988.800	2,337.800	151.000	0.000	151.000	500.000	0.000	0.000

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				Cap	Rev	G. Total (Cap+Rev)	2018-19	2019-20	
1	2	3	4	5	6	7	8	9	10
8146	Rehabilitation of Trimmu Sidhnai Link Canal. Approved PDWP 2015/10/20 Toba Tek Singh,Jhang	2,455.000	1,050.000	200.000	0.000	200.000	600.000	605.000	0.000
8147	Rehabilitation/Lining of Sharqpur Disty & System. Approved PDWP 2014/12/18 Sheikhpura,Nankana Sahib	853.399	540.399	150.000	0.000	150.000	163.000	0.000	0.000
<b>Sub-Total: Irrigation</b>		29,952.209	9,600.328	4,055.000	0.000	4,055.000	8,819.000	6,003.000	2,187.000
<b>Miscellenous</b>									
8148	Providing elevator and hygienic drinking water in Irrigation Secretariat for staff and visitors. Approved DDSC 2016/07/01 Lahore	49.995	10.995	39.000	0.000	39.000	0.000	0.000	0.000
8149	Security arrangements for key points (Barrages Dams and all the important sites) Approved DDC/DDWP 2014/10/21 Punjab	164.100	153.100	11.000	0.000	11.000	0.000	0.000	0.000
8150	Augmentation of earth moving machinery in irrigation department Punjab Approved PDWP 2015/10/07 Punjab	1,592.205	499.205	300.000	0.000	300.000	393.000	400.000	0.000
<b>Sub-Total: Miscellenous</b>		1,806.300	663.300	350.000	0.000	350.000	393.000	400.000	0.000
<b>Small Dams</b>									
8151	Construction of Mohra Shera Dam in District Rawalpindi (Land Acquisition and balance works) Approved CDWP 2009/07/17 Rawalpindi	261.000	123.000	138.000	0.000	138.000	0.000	0.000	0.000
8152	Construction of Mujahid Dam District Rawalpindi (Land Acquisition and balance works) Approved CDWP 2009/09/07 Rawalpindi	356.613	70.613	284.000	0.000	284.000	0.000	0.000	0.000
8153	Construction of Chahan Dam Project Approved PDWP 2013/05/20 Rawalpindi	1,567.430	1,316.430	100.000	0.000	100.000	151.000	0.000	0.000
8154	Construction of Mohata Dam Approved PDWP 2014/12/09 Rawalpindi	1,787.416	1,084.416	100.000	0.000	100.000	403.000	100.000	100.000
8155	Raising of Shahpur Dam Approved DDSC 2015/07/01 Attock	246.836	185.836	61.000	0.000	61.000	0.000	0.000	0.000
8156	Construction of Small Dams in District Attock Phase II Shahbazpur, Tajabara and Sadrial Dams (Revise Approved PDWP 2007/11/19 Attock	1,168.580	453.580	100.000	0.000	100.000	615.000	0.000	0.000
8157	Construction of Sowrra Dam Project in District Attock Approved PDWP 2014/10/24 Attock	915.075	845.075	70.000	0.000	70.000	0.000	0.000	0.000
8158	Rehabilitation and Raising of Qibla Bandi Dam. Approved DDSC 2014/10/24 Attock	324.896	204.896	120.000	0.000	120.000	0.000	0.000	0.000
8159	Construction of Ghabir Dam ( Land acquisition and command area Development Punjab Component) Approved PDWP 2015/09/11 Chakwal	924.933	436.500	50.000	0.000	50.000	214.000	0.000	0.000

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1	2	3	4	5	6	7	8	9	10
8160	Construction of Dhrabi and Minwal Dam (Revised) Approved PDWP 2005/08/15 Chakwal	981.365	479.365	100.000	0.000	100.000	402.000	0.000	0.000
8161	Construction of Small Dams in District Chakwal Phase II (Dhok Hum, Mundi Dam, Dhok Jhang and Uthwal /Lakhwal Dam (Revised) Approved PDWP 2010/03/19 Chakwal	1,496.080	996.080	100.000	0.000	100.000	400.000	0.000	0.000
8162	Construction of Arrar Muglan Dam in District Chakwal Approved PDWP 2013/06/14 Chakwal	829.375	814.375	15.000	0.000	15.000	0.000	0.000	0.000
8163	Construction of Tamman Dam Approved PDWP 2014/10/2016 Chakwal	1,542.014	1,022.014	100.000	0.000	100.000	320.000	100.000	0.000
8164	Construction of Pindori Dam Approved PDWP 2013/05/20 Jhelum	959.310	889.310	70.000	0.000	70.000	0.000	0.000	0.000
8165	Rehabilitation and Improvement of Existing Dams and Irrigation Channels in Small Dams Organization Approved PDWP 2014/08/19 Attock,Rawalpindi,Jhelum,Chakwal	732.017	574.017	158.000	0.000	158.000	0.000	0.000	0.000
<b>Sub-Total: Small Dams</b>		<b>14,092.940</b>	<b>9,495.507</b>	<b>1,566.000</b>	<b>0.000</b>	<b>1,566.000</b>	<b>2,505.000</b>	<b>200.000</b>	<b>100.000</b>
<b>Survey Investigation &amp; Research</b>									
8166	Feasibility study for construction of Kas Umar Khan Canal System PC II Approved PDWP 2016/07/15 Mianwali	120.788	197.888	74.000	0.000	74.000	0.000	0.000	0.000
8167	Using Seepage of River Ravi to Meet With Drinking Water Needs of Lahore City. Approved PDWP 2016/07/15 Lahore	70.289	54.289	16.000	0.000	16.000	0.000	0.000	0.000
8168	Hiring of Consultancy Services for Monitoring of Projects under Provincial Development Program. Approved PDWP 2015/10/28 Punjab	1,275.985	220.985	230.000	0.000	230.000	300.000	525.000	0.000
8169	Establishment of Strategic Planning / Reform Unit in Irrigation and Power Department Approved PDWP 2015/06/26 Punjab	362.000	123.000	0.000	50.000	50.000	115.000	74.000	0.000
8170	Recharge of Aquifer for Groundwater Management in Punjab. Approved PDWP 2015/07/01 Punjab	580.586	64.586	100.000	0.000	100.000	316.000	100.000	0.000
8171	Study for Ground water Management for Developing integrated water use for policy and Regulatory framework Approved DDSC 2013/05/30 Punjab	40.000	19.000	21.000	0.000	21.000	0.000	0.000	0.000
8172	Strengthening and Up gradation of Field Research Station at Babakwal and Research Laboratories of Irrigation Research institute Lahore and Numerical modeling of Hydraulic structures Approved PDWP 2014/12/18 Lahore,Sheikhupura	203.696	163.696	40.000	0.000	40.000	0.000	0.000	0.000
8173	Feasibility Study for Remodeling of Upper Jhelum Canal Approved PDWP 2014/04/11 Khushab,Jhelum	91.678	80.678	15.000	0.000	15.000	0.000	0.000	0.000

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1	2	3	4	5	6	7	8	9	10
	<b>Sub-Total: Survey Investigation &amp; Research</b>	2,745.022	924.122	496.000	50.000	546.000	731.000	699.000	0.000
	<b>Total: ON-GOING SCHEMES</b>	185,198.478	52,513.635	28,020.000	280.000	28,300.000	27,981.000	14,390.000	2,287.000

## **NEW SCHEMES**

### **Buildings**

8174	Construction office building of Chief Engineer Drainage & Flood Zone, Lahore Un-Approved Lahore	250.000	0.000	50.000	0.000	50.000	200.000	0.000	0.000
8175	Construction of New Q.B.Link office Complex Residences Boundary wall at Farooqabad Un-Approved Nankana Sahib	450.000	0.000	50.000	0.000	50.000	200.000	200.000	0.000
8176	Construction of residential buildings in Canal Colony LBDC Sahiwal, residence of SDO Sahiwal and SDO Ganjbar Naiwala Un-Approved Sahiwal	50.000	0.000	40.000	0.000	40.000	0.000	0.000	0.000
<b>Sub-Total: Buildings</b>		750.000	0.000	140.000	0.000	140.000	400.000	200.000	0.000

### **Drainage**

8177	Remodeling of Nikki Deg Drain RD 0 to 233+278 Un-Approved Gujranwala	850.000	0.000	100.000	0.000	100.000	400.000	350.000	0.000
8178	Construction of 1R Hadda Drain Un-Approved Mandi Bahauddin	52.000	0.000	52.000	0.000	52.000	0.000	0.000	0.000
8179	Construction of Tibba Manka Drain RD 0 to 28 Un-Approved Mandi Bahauddin	114.000	0.000	114.000	0.000	114.000	0.000	0.000	0.000
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8180	Land Compensation of Nikki Deg Drain RD 0 to 233 High court Case Un-Approved Sheikhupura	400.000	0.000	400.000	0.000	400.000	0.000	0.000	0.000
8181	Extension and Rehabilitation of Qutab Drain Un-Approved Rajanpur	1,100.000	0.000	100.000	0.000	100.000	500.000	500.000	0.000
8182	Rehabilitation of Drainage network in District Muzaffargarh Un-Approved Muzaffargarh	400.000	0.000	100.000	0.000	100.000	150.000	150.000	0.000
8183	Reclamation of water logged agriculture land of Border Area along Hakra Canal Un-Approved Bahawalnagar	1,595.000	0.000	237.000	0.000	237.000	563.000	795.000	0.000
8184	Mitigation of water logging in District R.Y.Khan Un-Approved Rahim Yar Khan	1,531.000	0.000	200.000	0.000	200.000	500.000	500.000	331.000
8185	Improvement of Drainage Network in Selected area of Punjab Un-Approved Punjab	2,000.000	0.000	500.000	0.000	500.000	1,500.000	0.000	0.000
<b>Sub-Total: Drainage</b>		8,042.000	0.000	1,803.000	0.000	1,803.000	3,613.000	2,295.000	331.000

### **Flood Works**

# IRRIGATION

(Million PKR.)

GS No	Scheme Information Approval Date / Location	Est. Cost	Accum. Exp June,17	Provision for 2017-18			MTDF Projections		Throw fwd Beyond June, 2020
				Cap	Rev	G. Total (Cap+Rev)	2018-19	2019-20	
1	2	3	4	5	6	7	8	9	10
8186	Extension of Gurha Ahamed Flood bund for protection of infrastructures on right side of River Kahan  Un-Approved Jhelum	87.000	0.000	87.000	0.000	87.000	0.000	0.000	0.000
8187	Extending Cantonment flood bund downstream G.T. Rooad bridge along right bank of River Jhelum  Un-Approved Jhelum	564.000	0.000	100.000	0.000	100.000	464.000	0.000	0.000
8188	Chanalization of Rakka and Darsola Nullah Tehsil Isakhel District Mianwali  Un-Approved Mianwali	370.000	0.000	100.000	0.000	100.000	200.000	70.000	0.000
8189	Providing River Training Works along Daddal Flood Bund between RD 55000 to 70000 to check erosive action of river Chenab  Un-Approved Jhang	495.000	0.000	50.000	0.000	50.000	150.000	295.000	0.000
8190	Providing Flood Protection along Left Bank of Chenab River Downstream Qadirabad Barrage  Approved PDWP 2017.01.13 Hafizabad	317.248	49.248	100.000	0.000	100.000	400.000	268.000	0.000
8191	Management of Flood Protection of Deg Nullah (Channelization and enhancing capacity of Basantar Nullah  Un-Approved Sialkot	7,700.000	139.864	300.000	0.000	300.000	2,220.000	2,036.000	3,004.136
8192	Channelization of Deg Diversion Channel  Un-Approved Sheikhupura	2,050.000	0.000	200.000	0.000	200.000	650.000	650.000	550.000
8193	Construction of Guide Spur near Ameerpur/ Sheikh Tayyab at River Ravi  Un-Approved Sahiwal	100.000	0.000	100.000	0.000	100.000	0.000	0.000	0.000
8194	Construction of flood protection Bund from Spur No.4 to 27100 of Shujabad Branch  Un-Approved Multan	25.000	0.000	25.000	0.000	25.000	0.000	0.000	0.000
8195	Tying up of Fazil Shah Flood Bund with Shujabad Branch (Second Defence Line). (Shujabad)  Un-Approved Khanewal	65.000	0.000	65.000	0.000	65.000	0.000	0.000	0.000
8196	Protecting Irrigation infrastructures from erosive action of river Ravi near Kund Sargana  Un-Approved Khanewal	150.000	0.000	150.000	0.000	150.000	0.000	0.000	0.000
8197	Protecting Shehr Sultan flood bund at RD 20+000 to RD 32+000 from erosive action of river Chenab to  Un-Approved Muzaffargarh	528.000	0.000	100.000	0.000	100.000	180.000	248.000	0.000
8198	Closing breach and strengthening Tibba Tie Bund RD 8900  Un-Approved Muzaffargarh	120.000	0.000	120.000	0.000	120.000	0.000	0.000	0.000
8199	Providing River Training Works along Rangpur Flood Bund  Un-Approved Muzaffargarh	493.000	0.000	164.000	0.000	164.000	329.000	0.000	0.000
8200	Construction of Head Regulator and allied structures on Lala Creek for protecting District Layyah from Floods  Un-Approved Layyah	493.000	0.000	100.000	0.000	100.000	200.000	193.000	0.000

# IRRIGATION

(Million PKR.)

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				Cap	Rev	G. Total (Cap+Rev)	2018-19	2019-20	
1	2	3	4	5	6	7	8	9	10
8201	Protection of public infra structure in the vicinity of Moza Mongar, Tehsil Karor Lal Hussain Distr Un-Approved Layyah	250.000	0.000	250.000	0.000	250.000	0.000	0.000	0.000
8202	Guide wall spur at RD 191 to 192 Minchin Flood Bund Un-Approved Rahim Yar Khan	274.000	0.000	184.000	0.000	184.000	90.000	0.000	0.000
8203	Raising & Strengthening of Gunda Bund near Maddokana Guide Wall Spur Un-Approved Chiniot	95.000	0.000	95.000	0.000	95.000	0.000	0.000	0.000
<b>Sub-Total: Flood Works</b>		<b>14,176.248</b>	<b>189.112</b>	<b>2,290.000</b>	<b>0.000</b>	<b>2,290.000</b>	<b>4,883.000</b>	<b>3,760.000</b>	<b>3,554.136</b>
<b>Foreign Aided Projects</b>									
8204	Construction of Jalalpur Irrigation Canal and its system Un-Approved Jhelum	26,000.000	0.000	110.000	0.000	110.000	2,700.000	2,700.000	20,490.000
				Local:	10.000	0.000			
				Foreign:	100.000	0.000			
8205	Capacity Development Technical Assistance for Institutional Transformation Un-Approved Punjab	260.000	0.000	0.000	60.000	60.000	0.000	0.000	0.000
				Local:	0.000	5.000			
				Foreign:	0.000	55.000			
<b>Sub-Total: Foreign Aided Projects</b>		<b>26,260.000</b>	<b>0.000</b>	<b>110.000</b>	<b>60.000</b>	<b>170.000</b>	<b>2,700.000</b>	<b>2,700.000</b>	<b>20,490.000</b>
<b>Irrigation</b>									
8206	Rehabilitation improvement of Machinery and Channels of Pai Khel Lift Irrigation Scheme Un-Approved Mianwali	300.000	0.000	100.000	0.000	100.000	100.000	100.000	0.000
8207	Upgradation of existing old Machinery of Lift Irrigation Schemes and lining of channels in Mianwali Canal Division, Mianwali. Un-Approved Mianwali	500.000	0.000	100.000	0.000	100.000	200.000	200.000	0.000
8208	Construction and Rehabilitation of Kas Umar Khan Canal system Tehsil Isa Khel District Mianwali Un-Approved Mianwali	2,500.000	0.000	220.000	0.000	220.000	1,200.000	1,080.000	0.000
8209	Rehabilitation of Manchar High Level Channel RD 0 to RD 19500 and 1R minor Rd 0 to RD 7 Tail Un-Approved Gujranwala	80.000	0.000	80.000	0.000	80.000	0.000	0.000	0.000
8210	Construction of Intake and Allied structures on River Ravi for augmenting /supplying drinking water to Lahore Metropolitan area Un-Approved Lahore	5,000.000	0.000	250.000	0.000	250.000	2,350.000	2,400.000	0.000
8211	Concrete Lining of Sikanwali Disty from RD 103 to RD 117 Un-Approved Sheikhupura	66.000	0.000	66.000	0.000	66.000	0.000	0.000	0.000
8212	Rehabilitation of MBL From Head to Tail Un-Approved Kasur	870.000	0.000	184.000	0.000	184.000	436.000	250.000	0.000
8213	Lining of Nehranwala disty RD 0 to 14383 Un-Approved Okara	99.000	0.000	20.000	0.000	20.000	79.000	0.000	0.000

# IRRIGATION

(Million PKR.)

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				Cap	Rev	G. Total (Cap+Rev)	2018-19	2019-20	
1	2	3	4	5	6	7	8	9	10
8214	Side protection of Jandraka Disty RD 9+000 to RD 74+877 Un-Approved Okara	62.000	0.000	62.000	0.000	62.000	0.000	0.000	0.000
8215	Rehabilitatioh of Sidhnai canal from head to tail Approved PDWP 2017.07.01 Khanewal	1,000.000	0.000	100.000	0.000	100.000	900.000	0.000	0.000
8216	Revitalization Regulation system at Taunsa Barrage Un-Approved Muzaffargarh	200.000	0.000	100.000	0.000	100.000	100.000	0.000	0.000
8217	Rehabilitation of Hakra Branch from RD 0+000 to 286+920 Un-Approved Bahawalnagar	850.000	0.000	100.000	0.000	100.000	750.000	0.000	0.000
8218	Clearing liabilities of incomplete unfunded schemes Un-Approved Punjab	20.000	0.000	20.000	0.000	20.000	0.000	0.000	0.000
8219	Improvement of Irrigation water supply at tail reaches of irrigation channels of minors in selected area of Punjab Un-Approved Punjab	6,000.000	0.000	1,000.000	0.000	1,000.000	2,500.000	2,500.000	0.000
<b>Sub-Total: Irrigation</b>		<b>17,547.000</b>	<b>0.000</b>	<b>2,402.000</b>	<b>0.000</b>	<b>2,402.000</b>	<b>8,615.000</b>	<b>6,530.000</b>	<b>0.000</b>
<b>Khadim e Punjab Kissan Package</b>									
8220	Khadim e Punjab Kissan Package. Un-Approved Punjab	5,000.000	0.000	5,000.000	0.000	5,000.000	0.000	0.000	0.000
<b>Sub-Total: Khadim e Punjab Kissan Package</b>		<b>5,000.000</b>	<b>0.000</b>	<b>5,000.000</b>	<b>0.000</b>	<b>5,000.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
<b>Local Development Programme</b>									
8221	Construction of Mateela Drain RD 0+000 to 20+080 Un-Approved Sargodha	27.759	0.000	10.000	0.000	10.000	17.759	0.000	0.000
8222	Construction of Solid Stone studs/ spurs on the Right Side of river Chenab Near Villages Muridwala, Sikdey . Tehsil Kot Momin district Sargodha Un-Approved Sargodha	750.000	0.000	30.000	0.000	30.000	450.000	270.000	0.000
8223	Establishment of saim Nullah from village Mohibpur to river Jhelum via village Girote, UC Mohibpur & UC Girote, District Khushab Un-Approved Khushab	15.000	0.000	5.000	0.000	5.000	10.000	0.000	0.000
8224	Concrete Lining of Rajbah, Akal Pur, Norewala, District Jhang Un-Approved Jhang	20.000	0.000	10.000	0.000	10.000	10.000	0.000	0.000
8225	Lining of 2R Canal Eastern Bar in District Pakpattan Un-Approved Pakpattan	120.000	0.000	40.000	0.000	40.000	80.000	0.000	0.000
8226	Lining of Bungahayat Disty RD 81670+110272 Tail. In Tehsil and District Pakpattan Un-Approved Pakpattan	40.915	0.000	13.000	0.000	13.000	27.915	0.000	0.000
8227	Construction of Flood Bund from Shahpur to Shujat Pur around Jalalpur Pirwala, District Multan Un-Approved Multan	1,386.272	0.000	50.000	0.000	50.000	668.136	668.136	0.000

## IRRIGATION

(Million PKR.)

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GS No	Scheme Information Approval Date / Location	Est. Cost	Accum. Exp June,17	Provision for 2017-18			MTDF Projections		Throw fwd Beyond June, 2020
				Cap	Rev	G. Total (Cap+Rev)	2018-19	2019-20	
1	2	3	4	5	6	7	8	9	10
<b>Small Dams</b>									
8243	Construction of Dadhocha Dam Un-Approved Rawalpindi	4,000.000	0.000	200.000	0.000	200.000	2,000.000	1,800.000	0.000
8244	Construction of Papin Dam (Land Acquisition and command Area Development Punjab Component) Un-Approved Rawalpindi	1,220.000	0.000	100.000	0.000	100.000	600.000	520.000	0.000
8245	Construction of small Dams in Districts D G Khan and Rajan Pur Un-Approved Dera Ghazi Khan,Rajanpur	1,500.000	0.000	100.000	0.000	100.000	700.000	700.000	0.000
<b>Sub-Total: Small Dams</b>		6,720.000	0.000	400.000	0.000	400.000	3,300.000	3,020.000	0.000
<b>Survey Investigation &amp; Research</b>									
8246	Study on Aquifer in Punjab at Sub Basin Level to determine Options for Maintaining Water Budget Un-Approved Punjab	269.449	5.449	50.000	0.000	50.000	100.000	119.000	0.000
8247	Up gradation of Central Design office in Irrigation Department Lahore Un-Approved Punjab	150.000	0.000	50.000	0.000	50.000	50.000	50.000	0.000
8248	Drainage water quality management for Irrigation use in selected area of Punjab Un-Approved Punjab	100.000	0.000	20.000	0.000	20.000	80.000	0.000	0.000
8249	Combating soil salinity and water logging in selected area of Punjab Un-Approved Punjab	200.000	0.000	29.000	0.000	29.000	171.000	0.000	0.000
8250	Survey, Investigation, Model studies, feasibility studies and Detailed Design required for improvement in irrigation infrastructures Un-Approved Punjab	200.000	0.000	50.000	0.000	50.000	150.000	0.000	0.000
<b>Sub-Total: Survey Investigation &amp; Research</b>		919.449	5.449	199.000	0.000	199.000	551.000	169.000	0.000
<b>Total: NEW SCHEMES</b>		82,526.633	194.561	12,671.000	60.000	12,731.000	25,908.470	19,612.136	24,375.136
<b>Grand Total</b>		267,725.111	52,708.196	40,691.000	340.000	41,031.000	53,889.470	34,002.136	26,662.136