MINISTRY OF NATIONAL FOOD SECURITY & RESEARCH

NATIONAL PROGRAM FOR ENHANCING THE COMMAND AREA IN BARANI AREAS OF PAKISTAN (NPECA)
PROJECT CONSULTANTS FOR IMPLEMENTATION ASSISTANCE, EXECUTION SUPERVISION AND THIRD-PARTY VALIDATION

MONTHLY PROGRESS REPORT AUGUST-2023

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1 INTRODUCTION

Rain-fed agriculture has been playing an important role in providing food and livelihoods for an ever-increasing population. A vast number of the poorest farmers depend on direct rainfall to derive their precarious livelihoods in Pakistan. However, the scanty and more often erratic nature of rainfall distribution poses serious challenges to agricultural productivity and people's livelihoods. The water runoff losses from cultivated rain-fed areas are about 6 MAF. The cultivable land of 3.37 mha exists in rainfed areas that can be brought under sustainable agriculture. In the rainfed area of Pakistan, 772 small dams exist in all provinces, 619 in Baluchistan, 81 in Sindh, 58 in Punjab, and 14 in Khyber Pakhtunkhwa. The total potential command area of these small dams is 680,420 acres, out of which only 13.3 % are being irrigated and developed and 86.7 % are undeveloped. 2,997 mini dams also exist in Punjab and KP; 1853 in Punjab and 1,144 in Khyber Pakhtunkhwa. The total potential command area under mini dams is 48,613 acres, out of which about 25% command area has been developed. Hence the crop intensity and crop production in these command areas are extremely low. The main factor of low productivity includes less on-farm water storage capacity, low land/water productivity, unavailability of energy at the farm, underdeveloped command area of small/mini dams and other water reservoirs, huge culturable waste, unavailability of skilled manpower, less coordination between departments and fewer linkages between federal and provincial research and development departments.

The rain-fed areas need an integrated approach to promoting sustainable agriculture and improving livelihood. For instance, the development of mini dams should be coupled with the catchment and command area development of the watershed. Similarly, other interventions including watercourse/pipelining, soil erosion control structures/ diversion structures, on-farm water storage tanks, solar pumps, sprinkler/drip irrigation systems, and high-value crops need to be pursued simultaneously. The capacity building of stakeholders is also proposed to stimulate the adoption of appropriate technologies at national and local levels.

Soil, water, and energy conservation technologies are effective, but blunt, instruments for reducing rural poverty, and research is needed on the best means to reduce disparities among landowners and between landowners and other groups, without compromising productivity and wider poverty alleviation gains. The most appropriate measure for increasing the water productivity at the farm level would be to conserve the maximum of available runoff water generated by rains, wherever possible through the development of water storage ponds/ tanks or other such interventions and then using it for supplemental irrigation of water-sensitive crops. The climatic conditions, soils, and water resources in the project area provide enormous opportunities for growing high-value and cash crops like orchards (citrus, olive, grapes, stone fruits), vegetables (cucumber, capsicum, chilies, onion, tomato, potato, garlic, etc.), groundnut, pulses, mustard, sesame, etc. Therefore, enormous potential exists for the development of irrigated agriculture in barani (rainfed) areas through effective water resource development and efficient management.

2 DESCRIPTION OF THE PROJECT

The National Program for Enhancing Command Area in Barani Areas of Pakistan has a strong relationship with all the strategies and growth development of the Government of Pakistan. It is in line with the Medium-Term Development Framework (MTDF) of the Government of Pakistan, which envisages efficient water conveyance and its application through rehabilitation/ improvement of farm-level water infrastructure and adoption of improved

irrigation methods e.g., drip and sprinkler irrigation, etc. The Pakistan Growth Strategy envisages irrigation water management as one of the components for achieving the targeted agricultural growth, which would be achieved through water conservation at the farm level through the construction of water storage ponds, development of dug wells, improvement of watercourses in the command area of small dams/ mini dams of barani areas of Pakistan, installation of solar pumping systems at the farm pond, dug wells, and provision of LASER land levellers.

The project follows an integrated approach including the development of water sources (farm ponds and dug wells) for assured supply of irrigation water, construction of farm level water distribution network (watercourses) for irrigating crops, promotion of LASER land leveling services, solar pumping systems for irrigation, and the capacity building of stakeholders for promotion of irrigated agriculture in the rain-fed areas. The Project envisions promoting an environment-friendly, socially sustainable, resource-efficient, and economically profitable irrigated agriculture through integrated management of available soil and water resources by strengthening small landholder farmers. It would be achieved through increased water conveyance and application efficiency, adopting improved irrigation methods, use of solar energy for water lifting/ HEIS operation for promoting crop diversification, effective use of costly inputs, and capacity building of water users in the project area.

Table 1: Province / districts wise details of Project

Sr. No.	Province	Districts
1.	Punjab	Attock, Chakwal, Jhelum, Rawalpindi, Dera Ghazi Khan, Layyah, Rajanpur, Khushab, Bhakkar, Mianwali, Gujrat, Sialkot, Narowal
2.	Balochistan	Quetta, Pishin, Killa Abdullah,Chagai, Nushki, Zhob, Bharkhan, Musa Khail, Killa Saifullah, Duki, Loralai, Sherani, Sibi, Harnai, Ziarat, Kohlu, Naseerabad, Jhal Magsi, Kalat, Surab, Mastung, Khuzdar, Awaran, Kharan, Washuk, Kech, Lasbela, Panjgur, Dera Bugti, Gawadar, Bolan
3.	Khyber Pakhtunkhwa	Karak, Kohat, Bannu, Hangu, Haripur, Peshawar, Nowshera, Charsadda, Swabi, Dir, Swat
4.	Azad Jammu Kashmir	Neelum, Muzaffarabad, Hatian, Bagh, Haveli, Poonch, Sudhnoti, Lotli, Mirpur, Bhimber
5.	Gilgit Baltistan	Gilgit, Skardu, Shigar, Kharmang, Diamer, Astore, Ghanche, Hunza, Nagar
6.	Islamabad Capital Territory	Islamabad

The component-wise details of the project are given below.

- Construction and solarization of **2,664** farm ponds for storing and supply of rainwater from various sources.
- Installation of solar systems on **2,664** farm ponds for the operation of HEIS.
- Development of **4,106** dug wells for the development of water resources to promote irrigated agriculture.
- Installation of **4,156** solar pumping on dug wells for water development and HEIS operation (Inclusive of 50 hydro-ram pumps for GB component instead of solar pumping systems on dug wells).

- Development/ Improvement of **2,432** watercourses carrying water from various sources for enhancing water conveyance efficiency at the farm level.
- Provision of **1,106** Laser land Levellers to the farmers/ service providers for Laser land leveling services in the barani areas. In addition, conventional land leveling will also be done on **34,000** acres in Khyber Pakhtunkhwa.
- Provision of fruit plants, oilseeds/ pulses crops & fodder/ forage/ range on **45,502, 112,189**, and **81,676** acres respectively, in the command area of small/mini dams to ensure irrigated agriculture.
- Establishment of demo-cum-training sites at five locations all over Pakistan and undertake need-based research activities when required.

3 MONTHLY PROGRESS (August 2023)

The progress of the month is mentioned below;

3.1 PHYSICAL PROGRESS REPORT BY ALL PROVINCES

3.1.1 Punjab

A total of 331 sites were inspected/Chceked during the month for the following interventions:

Table 2: Progress of Punjab Province during the month of August

Interventions	Total Offered	Total Checked	Verified	Deferred
Farm Ponds	31	31	31	0
Dug Wells Development	42	43	42	0
Solar Pumping system on Dug wells	4	4	4	0
Solar Pumping System for Farm pond	8	8	8	0
Water Courses Development	163	163	149	14
Laser Land Leveller Units	82	82	82	0
Fruits/Plants/Oil seeds/Pulses/Fodder/Forage/Range (Acres)	0	0	0	0

The detailed summary of total targets offered by the department, total checked, verified/deferred Sites, total ICR-I, ICR-II, FCRS, and the detailed Progress Report during the month of August in Punjab has been attached in **Annexure A.**

3.1.2 A PICTORIAL DISPLAY OF FIELD VISITS TO PUNJAB

Figure 1: Field Visit of Province Punjab during the month of August

3.1.3 Balochistan

A total of 146 sites were inspected during the month for the following interventions:

Table 3: Progress of Balochistan Province during the month of August

Interventions	Total tentative targets for (2023-24) proposed by OFWM for Approval from PSC	Total Schemes submitted 2023-24	Total Checked	Verified	Deferred
Farm Ponds	93	0	18	0	18
Rehabilitation/Development of Dug Wells	186	0	39	0	39
Solar Pumping System on Dug Wells	186	0	41	0	41
Solar Pumping System for Farm pond	93	0	18	0	18
Laser Land Levelers Units	8	0	0	0	0
Water Courses	0	0	30	0	30
Fruits/Plants/Fodder/Forage/Range/Oil seeds/pulses (Acres)	21480	0	0	0	0

The detailed summary of the total targets offered by the department, the total checked, verified/deferred Sites, and the detailed Progress Report during the month of August in Balochistan have been attached in **Annexure B.**

3.1.4 A PICTORIAL DISPLAY OF FIELD VISITS TO BALOCHISTAN


Latitude: 28.572208
Longitude: 65.447738
Elevation: 747.85±11 m
Accuracy: 3.9 m
Time: 17-08-2023 18:25
Time zone: Pakistan Standard Time
Note: Sherozai Kharan
Powered by NoteCam

Figure 2: Field Visit of Province Balochistan during the month of August

3.1.5 Khyber Pakhtunkhwa

A total of 10 WaterCourses sites, 248 Acres for RLL and 71 acres for the Agriculture Extension component have been inspected during the month in KPK. The intervention-wise details are given below:

Table 4: Progress of Khyber Pakhtunkhwa Province during the month of August

Interventions	Offered	Total Checked	Verified	Deferred
Water Courses	103	10	7	3
Rough Land Levelling (Acres)	300	248	248	0
Fruits/Plants/Fodder/Forage/Oil seeds/Pulses (Acres)	110	71	71	0

The detailed summary of the total targets offered by the department, total checked verified/deferred Sites, total ICR-I, ICR-II, FCRS, and the detailed Progress Report during the month of August in KPK has been attached in **Annexure C.**

3.1.6 A PICTORIAL DISPLAY OF FIELD VISITS TO KHYBER PAKHTUNKHWA

Figure 3: Field Visit of Province Khyber Pakhtunkhwa during the month of August

3.1.7 The Islamabad Capital Territory

A total of 28 sites were inspected during the month for the following interventions:

Table 5: Progress of ICT Province during the month of August

Interventions	Offered	Total Checked	Verified	Deferred
Farm Ponds	16	15	13	2
Dug Wells Development	9	8	8	0
Solar Pumping System on Dug Wells	2	2	2	0
Solar Pumping System for Farm Ponds	3	3	2	1
Laser Land Leveller Units	0	0	0	0
Fruits/Plants/Fodders/Forage/Range (Acres)	0	0	0	0

The detailed summary of total targets offered by the department, total checked verified/deferred Sites, total ICR-I, ICR-II, FCRS, and the detailed Progress Report during the month of August in ICT has been attached in **Annexure D.**

3.1.8 A PICTORIAL DISPLAY OF FIELD VISITS TO THE ISLAMABAD CAPITAL TERRITORY

Figure 4: Field Visits of the Province Islamabad Capital Territory during the month of August

3.1.9 Azad Jammu and Kashmir

A total of 35 sites were inspected during the month for the following interventions:

Table 6: Progress of AJK Province during the month of August

Interventions	Offered	Total Checked	Verified	Deferred
Farm Ponds	3	2	2	0
Dug Wells Development	14	14	14	0
Solar Pumping System on Dug Wells	16	16	16	0
Water Courses Development/Rehabilitation	7	3	3	0
Laser Land Leveller Units	0	0	0	0
Fruits/Plants/Oil seeds/Pulses/Fodder/Forage/Range (Acres)	0	0	0	0

The detailed summary of total targets offered by the department, total checked verified/deferred Sites, total ICR-I, ICR-II, FCRS, and the detailed Progress Report during the month of August in AJK has been attached in **Annexure E.**

3.1.10 A PICTORIAL DISPLAY OF FIELD VISITS TO AZAD JAMMU AND KASHMIR

Figure 5: Field Visits of Province Azad Jammu and Kashmir during the month of August

3.1.11 Gilgit Baltistan

In GB, the Field Engineer held extensive meetings under the supervision of the National provincial Coordinator with the technical and supervisory staff of OFWM to finalize the procedures and file maintenance including the issuance of TS for all the civil works. The main issue of rectification of the deferred sites was also emphasized. OFWM staff indicated involvement in the budget issue and expressed an inability to get any field activities checked temporarily.