Performance Appraisal of the Agriculture Department, Government of the Punjab

Inception Report

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INTRODUCTION

Background and Context

The Shahid Javed Burki Institute of Public Policy

The Shahid Javed Burki Institute of Public Policy at NetSol (BIPP) is an independent, not for profit institution which aims at: promoting rights and evidence based inclusive policy making; filling institutional void and professionalizing the key public policy areas; and, serving as a knowledge hub for policy analysis, development and implementation. BIPP's aim is to minimize this rationality deficit and produce leaders to bring tangible welfare gains for the citizens. Its Board of Governors comprises eminent experts, economists, scholars, academia and development practitioners from public, private and non-governmental sectors. As such, BIPP represents a unique blend of expertise to enrich both upstream policy process and downstream implementation.

The Agriculture Department of Punjab

Overview

Pakistan is an agriculture-based economy. Agriculture accounts for 21% of the GDP and provides livelihood to 44% of the rural population. Agriculture GDP is derived from four major subsectors. Livestock is the biggest contributor accounting for 56% of the total value. Crops is the second largest subsector accounting for 40%; followed by two smaller subsectors, Fishing and Forestry accounting for 2.0% and 2.0% shares respectively.

Vision Statement

Transform Punjab's Agriculture into a market-driven, diversified and sustainable sector through integrated technologies, transparency and value for money.

Goals and Objectives

Three goals and objectives are to be achieved to realize the above vision of the organization. They are:

1. Enhanced Profitability
2. ICT-led farmer centric service delivery
3. Private sector led growth

Functions of the Department '

The main functions of agriculture department are as follows:

- Legislation, policy formulation and sectoral planning regarding:
    - Agriculture Education, Training and Research including Agricultural University, Faisalabad and Pir Mehr Ali Shah University of Arid Agriculture Rawalpindi and pre-service/in-service training at Agriculture Training institutes
    - Adaptive Research and Research Farms

    - Improvement of agricultural and water management methods
    - Protection against insects, pests, prevention of plants diseases and quality control of pesticides
    - Soil Fertility and Soil Conservation
    - Mechanization, reclamation of land, use of agriculture machinery ploughing, tube-wells and installation and research Agricultural Engineering (Agricultural Machinery and Implements), Water Management Training and Research Institute, Lahore
    - Agricultural Information and publications/training
    - Agricultural Statistics
    - Preparation and review of agricultural production strategy in coordination with district agriculture extension
- Arboricultural Operations
- Monitoring of Agriculture inputs like fertilizers, pesticides and irrigation through field extension staff
- Promotion of modern agriculture technologies and other extension activities through method/result demonstration, farmers gatherings, print and electronic media, etc.
- Training and Research on Floriculture Seed Farms/Green Belts
- Market Information and intelligence System and matters common to all Market Committees
- Agricultural Loans/subsidies
- Water Management Operations, Planning, Research and Coordination
- Production, multiplication and marketing of certified seed through Punjab Seed Corporation
- Coordination and Strengthening of Research activities in Agriculture, Livestock, Irrigation, Water Management, Forest and Fisheries sectors through Punjab Agricultural Research Board
- Economic Planning and policy-making in respect of agriculture in the province
- Plant Protection:
    - Standardization of local and imported pesticides
    - Plant quarantine
- Economic studies for framing agricultural policy
- Farm management research for planning project formulating and evaluation in the province
- Grading of Agricultural commodities other than food grains, for exports
- Agricultural commodity research (marketing research and laboratory research for laying down district, regional and provincial grades)
- Soil survey, comprehensive inventory of soil resources of province and their proper utilization
- Standardization of fertilizers for meeting provincial requirements
- Introduction of special crops like jute, tea, olive etc.
- Under-development areas:
    - Identification of under-development areas
    - Identification of the fields in which an area is under-developed

    - Measures necessary to remove the causes of under-development in different areas
- Socio-Economic studies for framing agricultural research policies
- Research for the introduction of improved germs plasm, relating to agriculture
- Collection of statistics on agricultural research
- High level manpower training for agricultural research and on farm management
- Pest Scouting, Pest Survey, Pest Warning, Quality Control of Pesticides, Research on Plant Protection, training of pesticides dealers, farmers and extension workers in plant protection
- Budget, accounts and audit matters
- Purchase of stores and capital goods for the department
- Services matters except those entrusted to Services and General Administration Department
- Administration of the Agriculture related laws and the rules
- Maters incidental and ancillary to the above subjects

Purpose of the Performance Appraisal

The Agriculture department of Punjab has set a unique precedent in the province and across the country to engage a third-party evaluator to appraise its performance of the last financial year and a half. The appraisal, which will be conducted as independent activity by the BIPP, will be an objective analysis of both the projects and policies of the department and the impact and transformation that the department has been able to make over the stipulated time period. The following are the primary purposes of conducting the objective analysis of the department:

METHODOLOGY

Approach

A bottom-up, inclusive and analytical approach will be followed with a primary focus on major stakeholders' perspectives (including those of farmers-small, medium and large, agribusinesses and relevant government and non-government organizations) to reflect upon the performance, achievements and outcomes of the agriculture department alongside its allied and associated projects and interventions. The overall approach to conducting the expected performance appraisal will ensure the following:

- **Relevance:** This part of the evaluation approach addresses whether the interventions, specifically the projects undertaken were relevant to the agenda and annual objectives of the department as also served the intended benficiaries.
- **Effectiveness:** Are the objectives of the interventions being achieved? How big is the effectiveness of the project compared to the objectives planned?
- **Efficiency:** Are the objectives being achieved economically and cost effectively by the development intervention? How big is the efficiency or utilization ratio of the resources used?

- **Impact:** Does the development intervention contribute to reaching higher level development objectives and/or created a visible transformative impact on the lives and livelihood of the targeted beneficiaries?
- **Sustainability:** Are the positive effects or impacts sustainable? How is the sustainability or permanence of the intervention and its effects to be assessed?

Process

The over-arching methodology to conduct the performance appraisal should comprise of the following key tasks, activities and methods:

i. *Conceptual Design:* this entails development of a performance appraisal framework to ascertain what tasks, activities and projects undertaken by the department are to be appraised and what dimensions need to be explored.
ii. *Matching* of the departments objectives, work plans and mandate for the year with the achieved outcomes and impacts at the expiration of the project duration: This entails ensuring if all project documents, deliverables, tasks and activities that were originally part of the terms were actually delivered.
iii. *Gap Analysis:* The gap analysis exercise identifies the gaps between the departments' mandate and the outcomes achieved especially at the project and unit level within the department.
iv. Capacity Constraints and Bottleneck Identification: enlistment of constraints and bottlenecks that impacted the results achieved.
v. Inception Report: outlines the field implementation plan and sampling design for each of the three primary data collection methods detailed below.
vi. Primary data Collection and field visits and decentralized/local level discussions
vii. Focus Group Discussions and Key Informant Interviews
viii. Secondary Review: best practice programs and desk review of available research and data.
ix. Evaluation Report: consolidation of primary and secondary review into a final evaluation report.

Hierarchical Validation Methodology (HVM)

As per the hierarchical validation methodology, the FGDs and KIIs conducted simultaneously would be presented eachothers findings and results for cross-validation purposes.

Focus Group Discussions:

The FGDs would be conducted through an innovative scenario-based methodology whereby the participants would be presented a range of scenarios on salient segments of agriculture sector to achieve profitability and competitiveness. The structure of the focus group discussion is proposed as follows:

- The FGD will be approximately 90 to 120 minutes in length.
- No more than 8 to 10 members should be present.
- Moderator will be someone who all the participants can trust.

- Brainstorming exercises will be key in eliciting the desired responses.

Key Informant Interviews

The sample for KIIs must be selected with a view to ensure inclusivity from a gender, income, expertise, representation and geographic perspective. The structure of the KIIs is proposed to be as follows:

- 20 to 25 individuals need to be selected for one-to-one interviews
- A detailed probative questionnaire would be designed to extract maximum information from the respondents.
- A few activities will also be designed to probe detailed answers such as placards, showcase of photographs and videos from the project implementation for feedback, and ask for examples.
- Generation of recommendations from the participants that helps fulfill the gaps that were left in the implementation.

WORK PLAN

Activity / Week	1	2	3	4	5	6	7	8	9	10	11	12
Signing of Contract												
Formulation of TOC												
Field Research Plan												
Inception Report												
Primary Data Collection												
Final Research Report												

Field Research Plan

The matrix below presents the field research plan that research team at BIPP is expected to follow to collect primary data from the field. Once the primary data from the field is available, it will be tabulated, cleaned and analyzed to arrive at meaningful results from the field. As contained in the methodology above, the desk review of the projects and polices of the department will corroborate and validate the results from the field.

Activity	Methodology	Rationale	Risks	Contingency Plan	Tentative Timeline
Key Informant Interviews (KIIs)	The key informants will include senior level member of the academia, government and private sector. The BIPP team will identify researchers, policy makers and other stakeholders relevant to agriculture in the province and administer a semi-structured interview to the selected informants. A prospective list of informants is attached under Annex. 1 below.	The desired objectives of the interviews have to be reflected in a representative set of questions. Key Informant Interviews serve as the highest validation mechanism in the overall performance appraisal process.	(i). Poor availability of senior level informants including administrative secretaries of the government. (ii). Irrelevance of the key informant or questionnaire. (iii). Socio-political affiliations of informants. (iv). Political economy of opinion-making within the government.	The BIPP team has put up a replacement list of informants that includes next to the informant in terms of seniority especially within the administrative departments of the government. Separate questionnaires for each category of informants will be developed to ensure relevance.	April 1st, 2018 – April 30th, 2018.
Focus Group Discussions (FGDs)	The FGDs are to be held in three districts; (i). Pattoki, (ii). Rajanpur and, (iii). Chakwal. The Agriculture department/ADU will decide of the venue and ensure participation through the DC office of the desired participants. The BIPP team will develop the communication and research material to be fed into the event.	Focus Group Discussions will provide the key local and indigenous insights on the interventions of the agriculture sector at the. Agroecological zoning will be the primary basis for selection of the FGD districts. One district from the South, Central and Barani	(i). Lack of inclusivity and participation resulting from absence of the actual agri beneficiaries and stakeholders. (ii). Low interest and knowledge of the FGD participants regarding Agri interventions and programs.	Farmer organizations in the chosen districts will be surveyed through direct means of communication if the FGDs are unable to produce the desired outcomes owing to lack of inclusivity or low interest of participants.	Bhakkar: April 16, 2018 Pattoki: April 23, 2018 Chakwal: April 30, 2018

	A structured questionnaire that focuses upon both project and policy interventions of the department will be developed using a multi-scalar format. A prospective list of FGD participants is included under Annex. 2 below.	regions of Punjab are selected. • The Southern district would be selected for its high incidence and intensity of MPI. • The northern district is selected for its unique Barani geographical identity • Pattoki is selected as a representative of Central Punjab and for hosting a premier Agri research institute.			

District Response Mechanism (DRM)	The BIPP research team has enacted a letter requesting district response to an awareness and satisfaction survey. The letter will go through the agriculture department to all 36 districts of Punjab. The survey will include 8 questions that estimate the level of interaction of the agriculture department with the districts. It will also estimate the level of awareness and satisfaction of the district administration with the interventions and programs of the agriculture department in their district.	The DC office is the primary coordination and implementing body and is the custodian of the agriculture assets and representative of the provincial government in the district. The district response mechanism will cross-validate the responses obtained during KIIs and FGDs. Agri interventions and programs not directly known to the senior level KII respondents and local FGD respondents and those run by the district directly will be covered by the DRM.	(i). No response to the letter from some or all districts.	The BIPP research team will follow-up with the districts in case of no response. The DCs in the districts will be reached telephonically to obtain firsthand information. Inferential reasoning will be used to analyze districts with no response that lie in one of the three FGD districts. This implies that the FGD responses will be used as representatives for no response districts in the same agroecological zone or region after adjusting for income, social and poverty characteristics.	Ongoing Activity Duration of the Project

Projects, Plans, Policies and Strategies of the Department

Plans, Policies and Strategies

Documents[1] to be Reviewed for the Final Report	Document Summary
1. Agriculture Policy of Punjab	The agriculture policy prepared by a group of consultants engaged by USAID PEEP and Agriculture department of Punjab presents guiding principles for the agriculture sector in Punjab and specific initiatives through which the cross-cutting guiding principles could be achieved.
2. Position and Policy Papers on: Rural Poverty and Agriculture, Direct and Indirect Agriculture Sector Subsidies and the Issue of Targeting, Punjab Agriculture Produce Marketing Ordinance 1978, PAMCO, Horticulture Policy, Climate Change, Directorate General Agriculture (E&AR), Strategies and Program to Increase Income of the Small Commercial Farmer as Means of Poverty Reduction, Farm Productivity Enhancement, Food and Nutrition Security in Punjab, Directorate General Agriculture (Water Management), Institutional Assessment and Change Management.	A set of position papers commissioned by the agriculture department and prepared by independent consultants will also be reviewed to see the performance of Agri sub-sectors like extensions services, research, water management, horticulture and climate change, etc.
3. Diagnostic Assessment of the Punjab Agricultural and Livestock Innovation System: Achievements, Constraints, and Ways Forward	The World Bank team found that the system has expanded to cover almost all agricultural commodities and agroecological zones however the engagement with stakeholders to identify and resolve problems along agricultural value chains, including engagement at the farm level and with the private sector is lacking. Financial resources—flowing entirely from the provincial government - are insufficient, unreliable, and unsustainable.
4. E-Credit Scheme	This document outlines the various components of the e-credit scheme under which the farmers will be provided interest free-loans and access to ICT supported advisory services.

[1] Some of these documents were provided by the ADU, Agriculture Department on Apr 20th while the rest on Apr 26th.

5. Summary of Market Smart Subsidies for Agriculture Inputs	This document prepared for budgetary purposes and presented to the CM Punjab proposed a 'market smart' subsidy structure where subsidies on key agriculture inputs are linked to targeted crops/sectors. The document provides numbers on the annual and tri-annual subsides required for each input.
6. Aide Fund Summary	The Agriculture Innovation and Development Enterprise Fund seeks to improve on-farm productivity through promotion of Agri business and innovation by provision of incubation and acceleration centers. The fund will provide matching grants, co-equity investments and build capacity of the farmer.

In addition to the documents above, the following will also be reviewed[2]:

- Performance Report of the Agriculture Department 2016-17
- Action Plan of Seed Regulation
- Medium- Term Development Framework 2018-21
- PC-1 for Establishment of Model Farms Linked with Improved Supply Chains and Value Addition
- Policy Note on Food and Nutrition Security in Punjab – IFPRI
- Project Document of the World Bank funded 'Strengthening Markets for Agriculture and Rural Transformation in Punjab'
- Trip Report on Crop Reporting Service
- PAMRA Act
- Agriculture Growth Strategy
- Agriculture Budgetary Allocation as per ADP for FY 2018-19
- PC-1s of all other Projects
- Feasibility studies of the Department
- Performance Contracts of all Wings of the Department

Currently Implemented and Pipeline Projects

[2] Some of these documents were provided by the ADU, Agriculture Department on Apr 20th while the rest on Apr 26th.

	Name of the Project	Status as per PC-1			Revision / Change	Status/Findings
1	Establishment of HI-TECH Mechanization Service Centers (HMSCs)	NA			NA	NA
2	Cost of the Project	Government share:	Revenue Total	Rs. 2019.117 million Rs. 2019.117 million	NA	NA
		Service provider share		Rs.1800.000 million	NA	NA
		Total project Cost		Rs.3819.117 million		NA
	Financial Plans	• Sponsors own resources • Federal government • Provincial government • DEPs/banks • General public (Service Providers) • Foreign equity (indicate agency) NGO's/Beneficiaries • Others		NA NA 52.87% of T.P.C N.A 47.13% of T.P.C NA	NA	NA

			NA		
3	Gestation Period/ Starting and completion date of project	53 months (4.5 years) Starting date February 2017 Completion date 30th June 2021		NA	NA
4	Project Area	District of Punjab		NA	Application in 18 districts in first phase of project in 2017-18
5	Responsible Authority	Agriculture Department Punjab		NA	NA
6	Execution	Director General Agriculture (Field) Punjab • Project Director (PD) • Service Providers(SPs)		NA	NA
7	Project Objective	• Food security management in holistic manner. • Emphasis on innovative technologies to bring vertical crop productivity. • Increase farmer's income through increased crop productivity, better support price and diversified agriculture practices. • Development and adoption of new technologies for enhancing crop productivity. • Improve the living standards of farming community by reducing poverty.		NA	Objectives show sectoral relevancy with the Agriculture Policy which will enhance the crop productivity by establishing HMSCs under private sector at district level: • Establishment of high-tech farm mechanization service centers • Provision of state of the art farm machinery and equipment on rental basis to the farmers through HMSCs • Overcome farm labor shortage • Enhanced crop yield and farmers' profitability.

8	Project Description	• Establishment of HI-TECH MECHANIZATION SERVICE CENTERS (HMSCs) are used in a view to reduce the drudgery of the human beings and draught animals, enhance the cropping intensity, precision and timelines of operations and reduce the losses at different stages of crop production. • Farm mechanization is an important, time saving and productive input in modern agriculture. It is viewed as a package of technology to: • Ensure timeliness of field operations to increase productivity • Increase input use efficiency and • Increase land and labor productivity. • The proposed project which can be accommodated under *KHADIM-E-PUNJAB KISSAN PACKAGE*.	• The effects of mechanization are overall positive. • It has increased farm income and labour productivity. • Generated off-farm employment in agricultural machinery and tractors manufacturing industry. • In order to meet Government objectives of self-reliance in agricultural commodities, ensure food security, conserve natural resources, improve crop and livestock productivity, and export orientation through value addition in fruits, vegetables and livestock produce, this sub-sector needs due attention. • The farm operations for which machinery and equipment are being suggested have not yet been mechanized because of non-availability of machines and higher capital and operational cost.
9	Existing Facilities	• It was observed that most of the times farmers obtain such services on credit/deferred payment which is normally made after crop harvest. • In some cases, partial payment is made in the form of diesel. • Rental charges of harvesting grain crops are paid in the form of grains. A committee was constituted by the Agriculture Department vide No. SOA(P) 3-24/2016 dated 09.08.2016 with the following TORs; • To conduct feasibility study regarding Establishment of Mechanization	• There was no formal study was conducted. • Data is collected by extensive literature/internet review was done to identify different machines which has the potential of introduction, adoption and promotion in the Punjab. • Agriculture Department after getting expert opinion in respect of machines identification, modalities, implementation and economics of the proposed model from the progressive farmers, AMRI, Field Wing, Extension Wing and AEBI/NARC.

		Service Centers having hi-tech machinery & equipment under Kissan Package (ADP 2016-17) • To prepare the project document for "Establishment of High-Tech Mechanization Service Centers (HMSCs) in Punjab"	• Agriculture Department also conducted various meetings with stake holders and arranged awareness seminars at each district in which details of Kissan package along with salient features for establishing hi-tech farm mechanization service centers were highlighted.			
10	Proposed Plan	• The project has been designed to establish HMSCs in each district under private sector for provision of hi-tech mechanization services on rental basis to the farmers of the Punjab. • The Service Providers as per their requirement on cost sharing basis in the form of subsidy @ 50:50 or the interest amount on loan taken by the service provider will be paid by the Government. • The maximum cost of each HMSC is estimated as Rs. 50.000 million and the lowest cost will be Rs. 20.000 million for the purpose of cost sharing calculation. • The Service Provider will also bear the cost of infrastructure in addition to 50% share in hi-tech machinery & equipment. • An amount of Rs. 25.000 million (@ 50% of the cost of HMSC) will be the maximum amount of subsidy • Director General Agriculture (Field)-DGA(F), and performance security @ 10% of Service Provider share in the form of bank guarantee / CDR will also be deposited by the Service Provider to the Department for a period of 4 years.				
11	Implementation Plan	The project will be implemented in two parts: Part-1 • The Project Director along with his team shall be hired. After that Project Implementation Supervision Consultants (PISCs) shall be selected as per PPRA Rules. • Then a firm shall be selected for market intelligence study regarding demand & supply analysis. • In parallel implementation of the project will also be started and upto 30th June 2018, 18 HMSCs shall be established at 18 high demanding potential districts • During 2018-19, the midterm evaluation of the project will be carried out by the consultant and	<u>Year 2017-18</u> R.Y. Khan Sahiwal Faisalabad Bahawalnagar Vehari Sheikhupura Bahawalpur Gujranwala Kasur Jhang Sargodha	Year 2018-19	<u>Year 2019-20</u> R.Y. Khan Sahiwal Faisalabad Bahawalnagar Vehari Sheikhupura Bahawalpur Gujranwala Kasur	<u>Year 2020-21</u> Lahore Gujrat Bhakkar M. B. Din Layyah Chakwal Attock

		after successful evaluation selection of Service Providers for the next 36 HMSCs will be finalized Part-2 • During 1st Phase (upto June 2020), already finalized 36 HMSCs shall be established at 36 districts and selection of Service Providers for the 18 HMSCs will be finalized for the remaining 18 districts. • During 2nd Phase (upto June 2021), already selected leftover 18 HMSCs shall be established.	Okara Sialkot T.T.Singh Khanewal Muzafargarh Lodhran	Mid Term Evaluation	Jhang Sargodha Okara Sialkot T.T.Singh Khanewal Muzafargarh Lodhran Multan Lahore Gujrat Bhakkar M. B. Din Layyah Attock Pakpattan Rawalpindi Hafizabad D.G.Khan Narowal Khushab Rajanpur Mianwali Jhelum Chiniot Nankana Sahib	Pakpattan Rawalpindi Hafizabad D.G.Khan Narowal Khushab Rajanpur Mianwali Jhelum Chiniot Nankana Sahib

12	TARGET BENEFICIARIES	The target beneficiaries shall comprise of the followings; • The farmers having their land in the jurisdiction of the respective HMSC • Owners of the proposed service centers • Machinery manufacturers, importers and suppliers • Repair and maintenance workshops • Existing Service Provider	
13	Economic Analysis	Model-1: Investments in tractor, wheat chaff straw and hydraulic disc harrow have been found economically viable. Model-2: A project is economically viable or acceptable to the society if BCR ≥ 1 and IRR should be greater than existing country discount rate (5.75%)	• The BCR for this equipment's was found to be greater than 1. Therefore, the project should be considered. • IRR was found to be greater than the current discount rate. • Net present value is also positive over the useful life of these implements • Other than these three implements, majority of the implements shows BCR less than 1 • NPV was found to be negative for most of the other implements showing the economic viability for the investment in these implements
14	SOCIAL BENEFITS	• Use of high tech agricultural machinery will increase cropping intensity, crop yields and farm income in the project area. • The living standard of the farming community will improve and it will help to control migration of rural people to urban areas	
15	Monitoring & Evaluation Plan	The monitoring and evaluation will be done at three levels: • Internally • Externally • Third party	

16	Risk Assessment and Risk Management Strategy	<u>Risks</u> • Sustainability and surety of Hi-Tech Mechanization Centers. • Unfavorable climate. • Increase in input costs. • Unavailability of spare parts. • Lack of skilled labor. • Unavailability of repair and maintenance services.	<u>Risk Mitigation Strategy</u> • Risk transfer: Contract sign and guarantee in term of land and capital. Depending on the project needs and the regulatory requirements involved, we can structure the risk transfer solution as insurance or as a financial product • Risk Sharing: provide guarantee in form of Credit Risk Guarantee (CRG) as a comfort for the banks to lend and • Risk Reduction and Avoidance: Reducing risk by investing in capacity building, availability of targets beneficiary's farmers, insurance, contract farming, formal landing and risk share.
17	Management Structure and Manpower Requirements	• It is proposed that an independent Project Director may be appointed from open market on lump-sum pay package for project period on contract basis through competitive process. • The Project Director (PD) will work under the administrative control of Director General Agriculture.	

18	Project Implementation Supervision and Third party Validation	• Consultancy services for project implementation and supervision are required to supervise and ensure that the activities of establishment of HMSC project are executed in an orderly manner with a high standard of workmanship. • The envisaged implementation period and in conformity best possible and latest specifications of agricultural machinery, social, financial, legal and environmental standards.	<u>Task and Activities</u> • Evaluate the applications, including technical proposal/feasibility report/business plan, received from the interested Service Providers • Review the standard specifications of hi-tech machinery • Provide support in procurement process e.g. pre-qualification exercises; advertising invitations to bid; evaluation of bids and make recommendations; as well as prepare all relevant documents for award of contracts; • Preparation of TORs for additional studies if required • will carry out midterm evaluation of 18 completed HMSCs • Prepare monthly, quarterly, and annual reports for proposed project activities besides other periodic reports as per requirements of project management • Check the completed HMSCs, certify the payments, and quality of the machinery & equipment and prepare disbursements information for Government of the Punjab and the private partner.

	Name of the Project	Status ss Per PC-1	Revised / Change	Status/Findings
1	Empowerment of Kissan through Financial and Digital Inclusion	NA	NA	NA
2	Cost of the Project	Rs. 5900.000 million	NA	NA
3	Gestation Period	2017-18 to 2020-21	NA	
4	Project Area	All districts of Punjab province	NA	NA
5	Responsible Authority	Agriculture Department, Government of the Punjab	NA	NA
6	Execution	PITB, LRMIS, PFIs,	NA	NA
7	Project Objective	• To Facilitate the Small farmers for buying timely inputs at affordable Price. • A markup Free loan. • To empower farmer with latest production technologies and information. • Smart phone with preloaded mobile apps will be given to farmers. • This Scheme will empower farmer with both digitally & financially.		
8	Project Description	• The Government of Punjab under the Interest Free Agri. E-Credit Scheme will provide interest free loans to 500,000 farmers. • In all districts of Punjab province. • Through selected banks/MFBs/MFIs (herein referred to as Participating Financial Institutions PFIs).		

9	Eligibility Criteria	• Farmers having land holding of up to 12.5 acres shall be eligible for interest free financing • Tenants and sharecroppers are also eligible, subject to guarantee of owner of land (through an agreement). • Farmer/Tenant/share cropper should be the resident of same rural Union Council where the land is located. • The total 500,000 farmers, 30% may be farmers having existing lending relationship with the respective PFI having a clean credit history • 70% of the farmers should be fresh borrowers, with no credit history with any financial institution. • Interest cost of the loan covering land holding of up to 5 acres shall be borne by Government of Punjab. Any interest accrued on financing beyond 5 Acres shall be at the account of the borrower availing the financing facility. • Financing per borrower can be extended for rabi and kharif crops of 2016-17 to 2020-21 (5 years) • In case of same borrower for 5 consecutive years, Farmer will pay markup @ 0% for 1st two years, 4% for 3rd year ,8% for 4th year and 12% for 5th year.
10	Funding Arrangements	• Rate of mark-up on direct lending to farmers or wholesale cost of lending to MFBs/MFIs, cost of disbursement by MFIs, and any other charges or discounts. • half yearly cost of funds by each PFI shall also be provided in advance for the estimation and allocation of mark-up subsidy by the GoPb • The GoPb will deposit the half yearly estimated amount needed for interest rate subsidy (mark-up, wholesale lending credit lines to MFBs/ MFIs) in a special non- remunerative account opened with SBP-BSC, Lahore as per mutually agreed arrangements between GoPb and SBP Markup Rate • The markup charged by each PFI shall be based on the rate negotiated between the PFI and GoPb. Mark Up Rate Subsidy • The GoPb will allocate the estimated mark-up subsidy in their annual budget. • GoPb will authorize the Chief Manager, SBP-BSC, Lahore to directly debit their account with the amount of PFIs on their respective half yearly claims • Verification may done within 30 days of claims submitted.
11	Allocation of Target	• The targets shall be fixed as per agreement between the GoPb and each PFI

		• To facilitate target fixation by the GoPb, SBP will provide available relevant agri. financing data to Agriculture Department, GoPb. • The Mandatory Crop Loan Insurance Scheme will be applicable to financing made by PFIs, only to eligible farmers under this scheme, for four major crops i.e. wheat, rice, maize, cotton • Banks including ZTBL can avail GoP's Credit Guarantee Scheme for Small and Marginalized Farmers, as per eligibility criteria
12	Roles	Govt of Punjab (GoPb) • Agriculture Department, GoPb will be the implementing agency for the scheme. • Agriculture Department with the Help of PITB & LRMIS will Register the farmers in LRMIS center and data of these farmers will be shared with concerned PFIs for the selection of the borrowers • 100% coverage of interest/markup cost of financing to farmers up to 5 Acres and In case of same borrower for 5 consecutive years, Farmer will pay markup subsidy @ 0% for 1st two years 4% for 3rd year, 8% for 4th year and 12th % for 5th year. • Agriculture department will appoint an independent firm for verification of at least 20% borrowers • Verification of at least 20% borrowers through a Chartered Accounting Firm • Agriculture Department shall be responsible to ensure accuracy and efficacy of claims of PFIs before submitting them to SBP-BSC Participating Financial Institution (PFI) • Selection of Borrowers from farmers Registered with Agriculture department as per the eligibility criteria defined under the scheme. • Maximum turnaround time for loan processing will be 7 working days. • Disbursement of credit into the respective account/E-Account of the borrower as per the schedule defined in the list of activities. • PFIs shall claim accrued interest from GoPb after 6 months of disbursement. • Maintenance of borrower's record for audit by GoPb. State Bank of Pakistan (SBP) • SBP-BSC will make payment of the claims of PFIs in line with the procedure mentioned at para 6 of this scheme. • Facilitation in allocation of lending targets to PFIs.

		• Reporting of monthly performance of PFIs against allocated financing targets and sharing the same with GoPb on periodical basis.
13	Operational Modalities	• Credit for each crop will be paid in three installments i.e up to PKR 25,000 for Rabi crops per acre and up to PKR 40,000 for Kharif crop and maximum limit of PKR 65,000 per acre will be allocated. • The option of wholesale lending by one PFI to another PFI shall be available. • The performance of wholesale financier shall be counted under SBP's annual indicative agri. credit targets scheme. • GoPb through its revenue department will facilitate banks in recovery wherever required without any additional cost. • Bank shall be liable to recover any markup from customer that accrues on outstanding principal amount.

	Name of the Project	**Status ss Per PC-1**	**Revised / Change**	**Status / Findings**
1	Punjab Irrigated –Agriculture Productivity Improvement Project (PIPIP)- Revised	NA	NA	NA
2	Cost of the Project	GOP= Rs.21249.997 m Farmer=Rs. 14750.709 m Total= Rs.36000.706 m	GOP= Rs.41737.955 m Farmer=Rs.25721.045 m Total= Rs.67459.000 m	
3	Gestation Period	2012-13 to 2020-2021 Nine Years	Gestation period increased from 5 years to 9 years on the basis given in justification of revision of Project	Justification of Revision of Gestation Period (Page 94) • The constraints of high capital cost • Lack of capacity of stakeholders and technical skill in operation and maintenance of system. • Target of 120000 acres was not achieved and only 20500 acers was covered by 30-6-2016 (Showing Institutional capacity constraint to achieve target) However, target for provision of 3000 LASER was well achieved before time(in initial 4 years out of 5 years) due to i) Popularity of the technology and its adaptability by the farmers ii) Good Economic return

				Component of Upgrading Farm Level Irrigation Conveyance System was achieved as per target It is planned however to increase watercourse lining from 30 to 50 % so the cost was increased. Marketing constraints faced by farmers so it was planned to provide processing units to HEIS farmers such as juicers, concentrators, storage devices etc. So the cost of project increased along with cost of Monitoring and Evaluation Consultants due to increase in scope of monitoring and impact evaluation activities. Cost of project also revised / increased due to increase in salaries and increase in gestation period.
4	Project Area	Entire Punjab	NA	
5	Responsible Authority	Government of the Punjab, Agriculture Department through World Bank	NA	
6	Execution	Agriculture Department Punjab	NA	
7	Project Objective	• To improve water Productivity. • Produce more profitable crop through HEISs. • Strengthen private sector delivery capacity. • Build Capacity of stakeholders in better management of irrigation to attain high crop yields by less production cost.	NA	Objectives show sectoral relevancy with the Agriculture Policy, Punjab Growth Strategy (PGS) 2018, Punjab Agriculture Sectoral Plan (PASP), 2015, Pakistan Vision 2025 of Ministry P&D and Reforms, Government of Pakistan. HEISs: High Efficiency Irrigation Systems (Drip Irrigation System, Sprinkler Irrigation System:- Rain Gun, Reel System, Center Pivot System and slinger Move System)
8	Project Description	BACKGROUND Water Resource Status:		

		The World's Largest Indus Basin Waster System in Pakistan comprises; a) 16 barrages b) Two headworks c) Two Syphons d) 12 inter river link canals e) 44 canal commands and f) 140000 watercourses • Storage capacity is declining due to silting up of reservoirs • Irrigation to meet the crop water requirement is insufficient due to less water availability and second due to huge system losses during conveyance. • Groundwater has played a vital role in the development of agricultural and rural economy of Pakistan. • 60% farmers are relying on ground water (one million tubewells in Punjab) 5 times increase from 1985 to 2015. Cost of irrigating one acre with tubewell takes 3 hours and cost more than Rs.1000 to farmer against Rs.75 for the same irrigation with canal water supply. Irrigation Efficiency: • Total supply to Punjab as per Provincial Water Accord of 1991 is 55.94 MAF however, Punjab is receiving 50 MAF out of which 21 MAF is lost due to uneven fields and poor farm design. Deficiency is compensated 33 MAF from ground water. • Actual crop water requirement is 65 MAF (Million Acre Feet) in Punjab so the *Gap* of nearly 12 MAF is to meet irrigation requirements for present cropping. • Punjab's agrobased economy contributes 28% in GDP and employing over 50% of its labor force. Need for On Farm Water Management: • The only option for increased water availability at the farm level is through adoption and improvement of conservation measures e.g canal rehabilitation and lining, improvement of watercourses, LASER land leveling and promotion of better irrigation technologies and practices. • IMPACT ASSESMENT STUDY WAS CONDUCTED BY INDEPENDENT CONSULTANTS (Page 15) • Two Projects related to this project were previously completed namely "National Program for Improvement of Watercourses in Pakistan (NPIW)" and "Strengthening of LASER Land Levelling Services in the Punjab" • <u>Same activities are going on under the World Bank assisted project PIPIP.</u> • <u>OFWM Technology Promotion Model:</u> a) Installation of tubewells b) LASER Land leveling c) Drip and Sprinkler irrigation

Sustainability:

Climate change is the major threat to sustain any development strategy for the conservation of water reservoirs. Hence PIPIP interventions will help to minimize water loss and optimal use of available water resources and are the activities to reduce the gap of demand and supply of water resources.

World Bank Assistance:

- Projects supported; OFWM-I,II and III.
- OFWM components of 7 other projects since 1981
- Assisted in improvement of 14252 watercourses; leveling of 209,336 acres of land;11054 demonstration sites;2643 tubewells; 75 water storage tanks etc
- Training of 46000 personals under different projects
- PIPIP Revised Project

World Bank Studies:

"Sustainability of Farm Organizations (FOs) and International Reforms of Irrigation System in Pakistan" and "Water Use Efficiency Improvement Study for Pakistan"

Impact Study of HEISs:

By Director (Research) of particular Crops with representative of Punjab Economic Research Institute (PERI), Crop Reporting Service (CRS) and Planning and Evaluation Cell of Agriculture Department.

Study found HEIS most efficient and productive with palpable results in terms of water savings, enhancing water/crop productivity, reduction in fertilizer use and improving the produce quality.

PROJECT COMPONENTS /ACTIVITIES / INTERVENTIONS

A- Improving Water Productivity:

a) By Installation of High Efficiency Irrigation System (HEISs); on 120000 acres and provision of 50000 total LASER units to the farmers under Drip Irrigation System
b) Sprinkler Irrigation System; with the help of Raingun, Reel System, Center Pivot System, Linear Move System.

Eligibility Criteria of Farmer:

- Farmer should not have subsidies for more than 15 acres of land under the previous projects including ongoing PIPIP.
- Farmer must have assured/reliable water source.
- Agrees to contribute remaining cost of the system installation other than provided by the Government

		○ Must agree to provide land and will bear the cost of water storage pond, if required. ○ Agrees to mobilize post installation operation and maintenance expenditure. ○ Farmer should be owner/tenant/lessee and self-cultivator of land ○ Should not be defaulter of any financial institution ○ Will not remove or transfer the installation for at least three years. ○ Will facilitate the project staff, supply and services companies (SSCs) and consultants during their project on his farm ○ He will engage proper operator for maintenance, operation and troubleshooting of HEIS once installed on his farm ○ Will obey all rules and regulation/ conditions/ decisions specified by the government and will not challenge in the court of law. ○ Will arrange material prior to issuance of work order as his contribution in kind material towards farmers share. ○ Agrees to sign tripartite agreement before issuance of work orders ○ Ready to keep the system operational and will be liable to pay full amount of financial assistance received for the purpose of land revenue in case of violating any condition laid down by the government Eligibility Criteria of Farm: ○ Is accessible and frequently visited by the farmers ○ Land is not severely degraded ○ Land is under proper cultivation in terms of cultivated cropping pattern ○ Land is not isolated by such obstacle which cannot be resolved through economic design interventions Supply and Service Companies (SSCs): ○ SSCs will provide / responsible for surveys, designing, preparation of cost estimates, installation / commissioning of drip and sprinkler irrigation systems and afterwards post installation maintenance. ○ 24 SSCs have been pre-qualified so far and process is still on. HEIS Adoption Current Status: ○ It is being introduced for 120000 acres in Punjab under PIPIP ○ 20500 acres have been covered so far. ○ Slow implementation due to : I. New Technology in Pakistan II. High initial cost of HEIS equipment

III. Inadequate capacity of SSCs in terms of manpower, operation and to meet supply as per demand.
IV. Lack of technical knowhow of all stakeholders
V. Site specific issues
VI. Availability of highly subsidized canal water

- Keeping in view the above challenges, Government is providing solar system for operating HEIS under "Agriculture Kissan Package"

A-2 Strengthening LASER Land Leveling Services and Technology Need Gap

- 168000 acres leveled under project "Strengthening of LASER land level services in the Punjab" during project 2005-06.
- One LASER unit can level 300 acres per year due to short window of available time between Rabi and Kharif crops.
- Government has provided 5500 LASER units so far under PIPIP project. Total LASER units available in Punjab are 8500 with a remaining gap of 14000 units

Constraints in Accelerating Technology Adoption:

- Buying capacity of farmer is major constraint due to (85%) less than 12 acres of land. Farmer has to contribute Rs.350000 towards his share under PIPIP.
- Lack of awareness about the benefit of technology is another reason
- "Provision of Laser Land levelers to Farmers/Service Providers on Subsidized Cost" for 2015-16 to 2017-18. for provision of 6000 LASER units

B- Upgrading Farm Level Irrigation Conveyance System

By Improvement of Unimproved Canal Irrigated Watercourses:

- About 40% of water from canal irrigated system is lost due to seepage, spillage, side leakage because of; i. *Irregular profile and zigzag alignment of banks with many points of weakness. ii, silt deposition , plant growth in the way of watercourses, damage to water courses and frequent bank cutting and plugging for water abstraction.*
- 600 unimproved canal irrigated watercourses are planned in this revises PIPIP project.
- *Watercourse Improvement status;* Punjab comprises about 59500 watercourses, 25257 has been completed up to 2003-04 before launching of project "National Program for Improvement of Watercourses in Pakistan (NPIW) under which 18471 watercourses were treated.

		○ 3591 watercourses will be improved under PIPIP project ○ Total so far improved are 47590 out of 59500 total watercourses in Punjab Impact of Watercourse Improvement: ○ Annual Water Saving = 119-acre feet ○ Increase in cropping intensity about = 9% ○ Enhanced crop yield = 31% ○ Improved cultivation of high value crop i,e vegetables by 3.4% ○ Reduced theft and amicable dispute resolution ○ Improved equity Optimal Lining Length: ○ 60% lining of length of watercourse is technical feasible and economically viable. ○ A study is conducted under PIPIP project by M/s MM Pakistan Pvt. Limited and M/s Associated Consulting Engineers-ACE and establishing that 54 % optimum length of watercourse is best feasible. Organization of Water Users Associations (WUAs): ○ Department has successfully organized 50000 WUAs in last 40 years who have contributed Rs.12.5 billion in cash for the development and improvement of watercourses. ○ These WUAs are registered under "On Farm Water Management & Water Users Association Ordinance (Act)1981 (Amended 2001) Completion of Partially Improved Watercourses: ○ Mainly through achieving 60 % optimal lining length of watercourses Rehabilitation of Irrigation Conveyance System in Non-Canal Commanded Areas ○ 2000 schemes for outside canal commands have been achieved under PIPIP and 14000 schemes in non-canal commanded area will be achieved under Revised PIPIP. Water Sources in Non-Canal Commanded Areas: ○ These are Small Dams, Mini Dams, Water Storage Ponds, Hand Dugwells, Perennial Nallas,Tubewells etc. C- Adoption and Promotion of Modern Irrigation Technologies & Practices and Monitoring & Evaluation

		Adoption and Promotion of Modern Irrigation Technologies & Practices: o For filling gap between water supply and water loss o WHEN and HOW MUCH water is required for optimal result from irrigation system o For this purpose, following interventions were launched; a) Awareness Campaigns: - Through Advertisement, Print and Electronic Media, Documentaries and Videos etc. under supervision of DGA (WM) / PD (PIPIP), Director (Agriculture and Information) Punjab and Director (WMTI) b) Irrigation Demonstration Sites; at the WMRF; Water Management Research Farm at Renalakhurd for *Training and Research tests and trials*. It is ensured to keep all modern equipment and technology to demonstrate on these type of farms (WMRFs) c) To ensure Development of Infrastructure for Water Management Services Provision through Supply and Service Companies (SSCs) improvement and best practices. d) Research and development Activities; on WMRFs e) Development and Updation of OFWM Database; Global Positioning System (GPS) is important tool of Monitoring and Evaluation, Established / developed Geographical Information System software (GIS) with the help of SUPARCO and established GIS laboratory for mapping information of water management activities by initially digitization of watercourse command area. f) Provision of Processing Equipment / Machinery; World Bank has provided Rs.840 million (US$ 8 million) to the farmers for provision of machinery and equipment at 50:50 cost sharing basis. g) Technology Transfer Arrangements; DG (Water Management) / Project Directorate PIPIP on the recommendation of WB prepared a Master Degree Program for the PIPIP at Asian Institute of Technology (AIT) Bangkok for OFWM professionals. Moreover, US$ 1.6 million is allocated in this project for short term experts for transfer of technology to farmers and OFWM experts. D- Project Management, Supervision, Technical Assistance, Training and Strategic Studies Training and Capacity Building of Staff: o In service training at OFWM and Water Management Training Institute (WMTI) in Lahore and Renala KHurd supervised and planned by PD, PIPIP. Capacity Building of Farmers / Private Sector:

		COST SHARING ARRANGMENTS o To reduce financial burden of farmer in utilizing and adoption of modern technology under PIPIP. High Efficiency Irrigation System: o 60:40 percent cost sharing between governments (60) % and (40) % will be shared by farmer in shape of cash or kind to meet expenditure for HEIS system in up to 15 acres of land. o Cost sharing is same (60:40) for construction of water storage ponds. LASER Land Levelling: o 250000 is one time financial assistance to farmer provided by WB under \PIPIP. o Cost of tractor is about Rs.1.10 million so this assistance is about 73 % sharing by farmer and about 27% by government only. Watercourse Improvements: o Government provides entire cost of construction material and farmer bears labor charges in this case. EXECUTION OF FIELD ACTIVITIES High Efficiency Irrigation System (HEIS): o Installation is responsibility of SSCs o District / Tehsil level staff of OFWM will mobilize farmers to adopt HEIS technology. o Application will be scrutinized against approved criteria and eligible farmers will be approached by pre-qualified SSC of their own choice. o Farmer will be allowed to share his 40% in shape of Kind Material or cash 40% o On receipt of satisfactory report from the Project Implementation Supervision Consultants (PISC), DGA (WM) will release 50% payment of total cost including farmers share to SSC along with advice to install the system. o On completion of installation, SSC will report to concern DDA (OFWM) and PISC for verification of installation. o SSC will provide follow up support service as per tripartite agreement among department, SSC and farmer. o DGA (WM) will release remaining expenditure to SSC after retaining 10 % of the total cost as Bank Guarantee which will be released after two years after satisfactory follow up service of SSC to the farmer. o SSC/District/Tehsil OFWM staff will provide technical support to the farmers for the operation, maintenance, and troubleshooting of installed system of HEIS.

		○ Any dispute will be resolved by already constituted Dispute Resolution Committee. ○ Water Storage Pond: ○ Pre-requisite for operating HEIS in areas having only canal water source of irrigation ○ Plan for construction of Rainwater Harvesting Ponds (RHPs) with minimum capacity of 5 acres feet is there in the project. ○ WSPs covers 20% of total HEIS covering areas. ○ 60% cost is given to farmer by department for construction of WSP LASER Land Leveling: ○ Annual quota for each district is approved by Project Steering Committee (PSC) ○ Massive awareness campaign is launched at provincial and district level. ○ Agriculture Department will invite application from the interested farmers through advertisement. ○ Application will be received in the office of DDA (OFWM) ○ DDA (OFWM) will declare list of eligible applicants to the DGA(WM) ○ The allotment of LASER unit will be done through balloting by District Allotment Committee (DAC) ○ Allotment letter will be issued to successful applicant by DDA(OFWM) with the advice to book LASER unit with pre-qualified firm within 30 days of allotment and also submit farmers share to the DDA (OFWM) ○ DDA(OFWM)will submit bank draft of government share to the supplier of LASER unit firm. ○ Supplier will ensure supply of LASER unit and in case of failure in specified time, the farmer can book LASER unit from other firm ○ Technical committee will do the technical inspection of LASER unit and will submit report to DGA(WM) for releasing of payment to the firm along with original draft of farmers share as well. Improvement of Unimproved Irrigated Watercourses: ○ WUA will be formulated by shareholders of watercourses under the act with the help of tehsil level OFWM staff. ○ WUA will open a joint account in commercial bank and a bank statement will be submitted to DDA(OFWM). ○ WUA and DDA will go for an agreement to defile roles and obligations of both WUA and Government ○ OWFM staff at tehsil level will conduct survey of watercourse command area and prepare design and estimates of the task duly verified by PISCs. ○ The competent authority will accord Technical Sanction of entire cost of the construction material. ○ WUA will do 50% earthen improvement of watercourse in supervision of OFWM staff.

		○ It will be followed by demolishing existing channel and construction of new channel as per design. ○ Required funds will be transferred in the account of WUA by DDA(OFWM) ○ Funds will be released in three installments of 40, 30, and 30 on completion of three respective technical reports by designated technical committees. Completion of Partially Improved Watercourses: ○ Yearly quota will be decided by PSC at start of financial year on the basis of improved water courses in the district. ○ Already registered WUAs will be reactivated and mobilize to participate in improvement works ○ OFWM field staff will prepare design and estimate of required task in consultation with WUAs. ○ The proposal will be submitted to consultants/ field engineers by DDA(OFWM) ○ DDA / consultant will submit requirement of work to DGA(WM) for checking and verification and updation of water management database system ○ Agreement will be signed between WUAs and government ○ Account will be opened by WUAs in commercial bank ○ Competent authority will estimate the total cost of the project and will accord technical sanction ○ WUAs will collect share of farmer and supervise the whole activity. ○ OFWM staff will provide technical support to WUAs ○ Consultant will conduct spot checking ○ After third installment , consultant will submit FCRs to DGA(WM) Rehabilitation of Irrigation Conveyance System in Non-Canal Commanded Areas: ○ Advertisement will be made at provincial and district level at start of financial year. ○ OFWM staff will mobilize farmers and WUAs for organization under act. ○ WUAs/farmers and DDA(OFWM) will go under agreement for upcoming task ○ OFWM staff will prepare technical and financial requirement of the task in collaboration with WUAs ○ OFWM staff will provide technical assistance to farmers /WUAs and whole task will be supervised by PISC as third party validation as per their TORs ○ Funds will be transferred in account of DDA (OFWM) and will be released in installments of 70, 20 and 10. PROJECT CONSULTANTS

		○ Project Implementation Supervision Consultants (PISC) have been recruited through international competitive process for provision of technical support to the staff of Agriculture Department in the field for the execution facilitation of PIPIP MONITORING & EVALUATION CONSULTANTS ○ Consultation Selection Committee recruited M&E consultants in accordance with World Bank guideline of using Quality Based Selection (QBS) approved for selection. ○ Baseline of performance indicators have been established by the M&E consultants ○ As per TOR in PC-1 , consultants have developed Project Management Information System (PIMS) to monitor key performance indicators, reports ○ M/s MMP led consortia comprises Monitoring & Evaluation consultants of PIPIP ○ Future strategy / projects will also be identified by these consultants ○ Number of reports have been prepared by these consultants such as : i- Baseline Survey Report ii- Evaluation Report on Determining Optimum Length of Watercourse lining iii- Assessment of Watercourse Improvement Benefits iv- Economic and Financial Analysis of Additional Financing for PIPIP-Revised v- Economic Analysis of LASER Land Leveling vi- Environmental and Social Assessment (ESA) for PIPIP- Additional Financing. vii- Suitability of Precast Parabolic Lining as an Alternate Technique for Lining Watercourses viii- Impact of LASER Land Levelers on Socio-Economic Conditions of Farmers

	Name of the Project	Status ss Per PC-1	Revised / Change	Status/ Findings
1	Strengthening Markets for Agriculture and Rural Transformation (SMART)	NA	NA	NA
2	Cost of the Project	Total= US $ 300 m	NA	
3	Gestation Period	2018-19 to 2022-2023 (5 Years)	NA	NA
4	Project Area	Entire Punjab	NA	
5	Responsible Authority	Government of the Punjab, Agriculture Department through World Bank	NA	
6	Execution	Agriculture Department Punjab	NA	
7	Project Objective	• To increase the productivity of crop and livestock farmers, improve their climate resilience, and foster agribusiness development in Punjab	NA	Objectives show sectoral relevancy with the Agriculture Policy, Punjab Growth Strategy (PGS) 2018, Punjab Agriculture Sectoral Plan (PASP), 2015, Pakistan Vision 2025 of Ministry P&D and Reforms, Government of Pakistan.
8	Project Description	BACKGROUND I- STRATEGIC CONTEXT Country Context: o Pakistan, with a population of over 207 million people, is the world's sixth most populous country.		

		○ GDP growth planned to improve from 5.3 % to 5.8 % ○ 147th out of 188 countries to rank low on the human development index. ○ Punjab accounts for more than half of Pakistan's GDP and 63% of Punjab's 110 million is in rural area. Sectoral and International Context: ○ Agriculture is a key contributor to the economy in Pakistan in general and Punjab in particular, yet agriculture growth is languishing. ○ The factors limiting agricultural growth include poor adoption of modern technologies, poor service delivery, and poorly functioning agricultural markets. ○ Agricultural and economic growth in Punjab can be traced to current agricultural and irrigation policies. Subsidies agricultural support prices, caps on meat and milk prices, low investment, and weakening institutions support investment in traditional crops at the expense of high-value agriculture (HVA) discourage efficient water use, and ultimate suppress agriculture growth. ○ Pakistan must evaluate options for future growth in light of several factors such as: i. Rapid shift in domestic demand for HVA products ii. To focus on those agricultural products which can provide opportunities to generate export revenue and jobs. iii. Lack of new source of irrigation water. iv. Need for new climate change resilient production system ○ Agriculture requires a paradigm shift in Punjab to unlock opportunities for future growth. ○ Ignored non-farm sector in overall economic growth for Punjab. ○ Major barriers / constraints to institutional credit include lack of collateral, poor financial records and an inability to prepare business plans. ○ Issues of gender and climate change are being overlooked ○ Pakistan's climate change risk is magnified by growing water scarcity, uncontrolled urbanization, and rapid population growth. Relationship to the CPS (Country Partnership Strategy) and Rational for use of Instruments: ○ SMART Punjab Program aligns with the World Bank objectives of private sector development and inclusion, set out in CPS. ○ Program-for-Result (P for R) is the most suitable instrument for the SMART Punjab Program.

		II- PROGRAM DESCRIPTION The Government Program and Scope of the Proposed SMART Punjab Program: o SMART emphasizes enabling productivity, increasing competitiveness in agricultural marketing and trade, and enhancing resilience. (Three Result Areas) o P for R supported program focus 14 out of 25 areas with a focus on increasing crop and livestock productivity, research and extension policy, transition toward HVA and CSA, livestock breeding and preventive care, agribusiness, enhancing resilience and inclusiveness, and improving the functioning of crop and livestock markets including food safety. o Activities for Three Result Areas will be supported by two financial sources; a) GOP and SMART Punjab P for R supported program. KEY RESULT AREAS Result Area -1: o To increase on-farm productivity and value of crops and livestock. Result Area - 2: o Increased value addition and competitiveness of crops and livestock. Result Area-3: o Enhanced resilience of stallholder farmers to climate change and natural disasters. DISBURSEMENT LINKED INDICATORS AND VERIFICATION PROTOCOLS o Progress will be measured through 12 disbursements linked indicators (DLIs) Under Result Area-1 DLI-1: Improving access to quality farm inputs: DLI-2: Revitalizing provincial crop and livestock research and extension systems. DLI-3: Improving livestock health and breeding,

		DLI-4: Modernizing the wheat marketing system and transitioning to high-value agriculture Under Result Area-2 DLI-1: Providing incentives to agribusiness for investment in value addition and agricultural technology. DLI-2: Improving market conditions for meat and raw milk DLI-3: Modernizing agricultural markets. DLI-4: Improving food safety. Under Result Area-3 DLI-1: Improving sustainability and efficiency of irrigation DLI-2: Rolling-out an agricultural insurance system DLI-3: Increasing public investment in climate-smart agriculture. DLI-4: Communications, beneficiary feedback, capacity building, and monitoring and evaluation. CAPACITY BUILDING AND INSTITUTIONAL STRENGTHENING Institutional change and strengthening accompany the new policy directions and reallocation of public investment under SMART Punjab. Skills training for the agricultural labor force will include vital but overlooked topics and explore innovative ways of reaching people (especially women) GoPb has started to develop and implement a strategic communications plan to reach the diverse stakeholders and affected external and internal parties. III- PROGRAM IMPLEMENTATION Institutional and Implementation Arrangements: o The Department of Agriculture, Livestock and Dairy Development, Food, Irrigation, Finance, P&D, and Industries, Commerce & Investment will be responsible for implementing the SMART Punjab Program o A SMART Steering Committee (SC) was established on November 25, 2016. o SMART Punjab will coordinate and collaborate with other programs.

		Results Monitoring and Evaluation: o Implementing a new results-based approach requires support for M&E Funds Flow and Disbursement Arrangements: o International Bank for Reconstruction and Development (IBRD) funds of SMART Punjab will be channeled to the Government of Punjab Non-Food Account-1 through the State Bank of Pakistan. IV- ASSESSMENT SUMMARY Technical: o The Government Program adopts a credible strategic approach toward agricultural and rural transformation. o The governance structure, institutional arrangements, and operational arrangements of the SMART Punjab implementing entities are adequate. o The P for R-supported Program is backed by an adequate expenditure framework. o The SMART Punjab PDO will be achieved through a logical result chain. o The economic and social rationale for SMART Punjab is compelling; the Program is expected to add US$ 2.2 billion to Agriculture GDP, provide 350,000 jobs, lift 1.7 million people out of poverty over five years, reduce inequality, and expand opportunities for women and youth. o The Program is expected to contribute to narrowing the gender earnings gap o Climate co-benefits are calculated at 51.6% of the total loan amount Fiduciary: o A Fiduciary System Assessment (FSA) of the SMART Punjab Program will be done in accordance with Bank policy o Procurement of consultancies, goods, works and non-consulting services for SMART Punjab will be undertaken by five departments (Agriculture, Food, Irrigation, Livestock and Dairy Development, Industries, Commerce & Investment) with the P&D Department playing a coordination and monitoring role and the Finance Department a financial role. o The Borrower will implement the SMART Punjab Program in accordance with provision of the Anti-Corruption Guidelines (ACG) applicable to P for R operations.

		Environmental and Social Effects: o An Environmental and Social Assessment (ESSA) was prepared for SMART Punjab. o Environmental risk is rated as Moderate. o Social risk is rated as Substantial; risk include i) access to program benefits for vulnerable and marginalized groups and b) potential social conflict. o Communities and Individuals who believe that they are adversely affected as a result of a bank supported P for R operation. o Although the proposed operation will undertake or support no activities of high risk from an environmental or social perspective. Risk Assessment: o Political and governance risks are substantial o Fiduciary and social risks are substantial o Stakeholder and other risks o GoP and the Bank are fully aware of the transformational nature of SMART Punjab and the associated implementation challenges. Program Action Plan: o Assessments during preparation of the SMART Punjab P for R (technical, fiduciary, and environmental and social) evaluated the capacity of the executing and implementing entities, identified and rated risks, and specified key actions that GoPb should undertake to enhance Program systems and mitigate risks.

Annex. 1 Prospective List of KII Participants

Government of the Punjab

1.1. Secretaries to the Government of Punjab:

- Agriculture
- Livestock and Dairy Development
- Irrigation
- Energy
- Food
- Industries, Commerce and Investment
- Agricultural Commission

1.2. Supervisory Level Officers/Heads of Companies of the Government of the Punjab

i. CEO Urban Unit
ii. Director PDMA
iii. Director PERI
iv. CEO PSPC
v. Representative of Crop Reporting Service
vi. Director Market Committee Provincial Fund Board, PAMRA

Academia and Private Sector

1. Agriculture experts and researchers in Universities
2. Private sector investors engaged through the chambers of commerce and industry
3. Arif Nadeem (PAC)
4. Mr. Asif Sharif
5. Dr. Kaleem Qamar'
6. VC University of Veterinary and Animal Sciences

Annex. 2 Prospective List of FGD Participants

1. Agriculture Research Organizations in the Selected District
2. Member of the Academia affiliated with the Agriculture sector
3. District Government Representatives
4. Farmer Organizations/Unions
5. Marketing Committees

Donors

1. IFPRI (Currently editing the Agriculture Policy)
2. USAID
3. FAO
4. World Bank
5. Asian Development Ban

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