



GOVERNMENT OF SINDH

UMBRELLA PC-I (MODIFIED)

SINDH AGRICULTURAL GROWTH PROJECT

**AGRICULTURE, SUPPLIES & PRICES DEPARTMENT
AND
LIVESTOCK & FISHERIES DEPARTMENT
GOVERNMENT OF SINDH**

Sindh Agricultural Growth Project

Table of Contents

Items	Page No.
Project Digest	3
Project Objectives	4
Description and Justification of Project	5
Project Beneficiaries	7
Implementation Arrangements	7
Project Steering Committee	8
Project Coordination Unit	9
Project Management	9
Project Management and Monitoring and Evaluation	12
Funds Flow Arrangements	12
Details of Components – Agriculture Sector	13
Details of Components – Livestock Sector	19
Project Cost Summary – Component wise	26
Annual Operating and Maintenance Cost after completion of the Project	27
Demand and Supply Analysis (for Industrial and Agricultural)	27
Financial Plan	28
Project Benefits and Analysis	29
Annexures	32
Annexure-I (Map indicating project area and locations of Agriculture sector)	33
Annexure-II (Map indicating project area and locations of Livestock sector)	34
Main Summary – year wise	36
Cost summary of Agriculture Component - year wise	38
Annexure-III (Component wise, item wise, year wise costs – Agriculture sector)	39
Cost Summary of Livestock Component - year wise	48
Annexure-IV (Component wise, item wise, year wise costs – Livestock sector)	49
Annexure-V (Implementation Schedule)	60
Quarterly Activity Plan	61
Annexure-VI (Environmental and Social Safeguards)	65
Annexure-VII (Financial Management and Disbursement Arrangements)	67
Appendix-1 (Economic and Financial Analysis)	68
Annexure-VIII (Competitive Agricultural Research Fund)	77
Competitive Agricultural Research Committee	79
Annexure-IX (Log Frame work)	80
Annexure-X (Recruitment Rules & TORs of Project Staff)	83
Annexure-XI (Recruitment & Procurement Committees (Agriculture))	114
Annexure-XII (Recruitment & Procurement Committees (Livestock))	115
Annexure-XIII (TOR for Project Key Staff)	116
Annexure-XIV (Baseline Data of Farmers to be Trained)	136
Minutes of PDWP meeting held on 19-08-2013	138
Rough Cost Estimates (Livestock Component)	141
Minutes of Pre-CDWP meeting held on 04-10-2013	156

(PC-1 Form Revised 2005)
GOVERNMENT OF PAKISTAN
PLANNING COMMISSION

(PRODUCTION SECTORS)

1.	Name of the Project	Sindh Agriculture Growth Project
2.	<u>Location</u> <ul style="list-style-type: none"> • Provide name of district and province. • Attach a map of the area, clearly indicating the projects location 	Agriculture component Khairpur, Larkana, Umerkot, Mirpurkhas, Sanghar, Matiari, Hyderabad, Jacobabad, Shikarpur, Kashmore, Kamber, Thatta, Tando Allahyar and Badin Livestock component Hyderabad and Thatta, Mirpurkhas and Shaheed Benazirabad, Naushehro Feroze and Khairpur, Sukkur and Larkana Map Attached as Annexure “I & II” indicating Project area and locations.
3.	Authorities responsible for	
	i) Sponsoring	Secretary, Agriculture Supply & Prices Department, Government of Sindh through World Bank, IDA Loan
	ii) Execution	i. Agriculture, Supply & Prices Department Government of Sindh through PMU Agriculture Component ii. Livestock & Fisheries Department, Government of Sindh through PMU Livestock & Fisheries Component
	iii) Operation and maintenance	The beneficiaries/ stakeholders
	iv) Concerned Federal Ministry	
	❖ In case of more than one agency, give their component-wise responsibility. For provincial projects, name of the concerned federal ministry be provided.	Not applicable
4.	(a) <u>Plan provision</u> <ul style="list-style-type: none"> • If the project is included in the medium term/five year plan, specify actual allocation. • If not included in the current Plan, what warrants its inclusion and how is it now proposed to be accommodated. • If the project is proposed to be financed out of block provision, indicate: 	Project will be financed by World Bank with the anticipated IDA soft loan credit of US\$ 100.00 Million The project is included in ADP 2013-14 under Agriculture Department with token allocation of Rs.10.000 million. As well as under Livestock Department with token allocation of Rs.44.475 Million Not applicable

5.	<p><u>Project objectives.</u></p> <ul style="list-style-type: none"> The objectives of the sector/sub sector as indicated in the medium term/five year plan are reproduced. Indicate objectives of the project and a linkage between the proposed project and the sectoral objectives. 	<p>1. The proposed Project Development Objective (PDO) is <i>to improve the productivity and market access of small and medium producers in important commodity value chains</i>. This will be achieved by: (i) investing in knowledge and technology for producers sub-sectors of crops and livestock; and (ii) strengthening public sector institutions to enhance the enabling environment for sustained sectoral growth.</p> <p><u>Agriculture component</u></p> <ul style="list-style-type: none"> Increase in agricultural productivity of targeted commodities. Increase in farm income for better social economic conditions of small farmers. Increase in GDP contribution of targeted commodities. Improve quality of produce to make it more competitive in local and international market. Reduce post harvest losses in the target commodities. Capacity building of researchers, extension workers, producers & farmers. To combat food security by improved nutrition ultimately addressing the poverty alleviation. <p><u>Livestock component</u></p> <ul style="list-style-type: none"> To improve the milk production and organize the proper milk collection system by installing 153 milk chillers at various villages of 8 targeted districts To improve the socio-economic status of the farmers through improved and efficient marketing system. Livestock sector institutional development by rehabilitation of 121 flood/rain affected buildings of various Institutions of public sector. To improve and increase the trained manpower of 3075 farmers in Livestock Management and 760 trainees in artificial insemination through establishment of AI Training Centre at Tandojam during the project period. To increase the milk production by genetic improvement of dairy herd through artificial insemination service in project area as well advanced pregnancy diagnosis services through Ultrasound machines. To ensure the delivery of quality preventive & curative veterinary/animal health services to the registered farmers for approximately 30600 animals in the targeted areas. To deliver the door step animal nutrition advisory services in targeted districts for optimal use of feed and fodder that enhances the milk production.
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<p>6.</p>	<p><u>Description and Justification of Project.</u></p> <ul style="list-style-type: none"> ▪ Describe the project and indicate existing facilities in the area and justify the establishment of the project. 	<p>Agriculture’s contribution to Pakistan’s GDP has declined; however, it still accounts for 21.6percent of value added. Agriculture GDP consists of 32.8percentmajor crops, 11.1percent minor crops, 53.2percent livestock, 2.9 percent fisheries and forestry.¹Through its production, agriculture contributes 60 percent to the country’s export earnings, and, despite strong urban growth, 64percent of the population still lives in rural areas and 45 percent of the nation’s labor force still work in agriculture. Despite declining productivity growth, Pakistan is among the top 20 global producers in over 48 different agricultural commodities. The country produces over 108 million tonnes of agricultural commodities worth over US\$13 billion annually.</p> <p>In July 2011, the 18th Amendment of Pakistan’s Constitution introduced devolution of many government services, including agriculture, to the provinces. With this, many national programs either ended or moved to each province, as did the responsibility for areas like policy development and food security. The provinces now face significant challenges in taking on additional roles that were previously under federal responsibility in addition to the research, extension, and marketing support challenges they already managed.</p> <p>Sindh Province has 23.8 per cent of Pakistan’s population, 18 per cent of its land area, and 14 per cent of its total cropped area.² About 30-35 per cent of Sindh’s population lives below poverty line, and a majority of the poor are rural. Landholding patterns in Sindh are highly skewed from national norms, with a median farm size of around 11.33 hectares, as compared with 2.83 hectares in Punjab.</p> <p>The Sindh Agriculture Growth Project (SAGP) will focus on horticulture—particularly chilies (92 percent of national production), onions (33 percent), and dates (about 50 percent)—and milk production because they have a small farmer focus, have significant involvement of women in production and processing, and, from a national</p>
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¹ Major crops include cotton, wheat, rice, maize, sugarcane; minor crops include fruits, vegetables, barley, pulses, tobacco, and oil seeds.

² Sindh’s cropped area is 3.02 million hectares.

perspective, Sindh enjoys the greatest competitive advantage in these pro-poor production value chains. Horticulture is largely unregulated, includes more private sector actors than the major crops, and has received little donor attention in the past. When donors have invested, they have focused largely on mangos and bananas—the two most profitable horticulture crops, which are often grown by large landowners. Investing in horticulture is seen to offer the best potential for increased small producer incomes, new employment opportunities in production and processing, improved resource productivity, and enhanced micronutrient availability in the market. The one exception to this strategy is the planned intervention in the rice value chain, which will target a cluster of small and medium sized producers to help them reduce the post-harvest damage and loss from poor practices.

The first order constraint identified in the analysis of the targeted value chains is the quality of production and the high level of post-harvest losses, so SAGP will first focus on improving that quality. The interaction between producers and other actors along a value chain varies by commodity. In milk, producers generally produce directly for processors. In horticulture, they may link with either traders or processors. In all of targeted value chains, there are several private sector actors (traders and processors) who are actively seeking high-quality products for domestic and international markets. Despite the presence of many value chain actors, 25 percent of Pakistan’s fruits and vegetables produced annually go to waste between the farm and the consumer. Only four percent of Pakistan’s total fruit and vegetables are exported and at far lower prices (less than 41% of the world average) due to poor quality and the reliance on traditional low end markets. In milk production, losses climb to about 30 percent in the summer due to lack of infrastructure and equipment. Since milk production declines by 50 percent in the summer, this lead to huge shortages and high prices.

The introduction of good agricultural practices and modest investments in relatively simple technology could substantially increase the quality of production and the potential for increased trade and higher incomes. For example, chili exports from Pakistan are banned by the EU due to unacceptable levels of aflatoxin. In dates, only 20-30 percent of the production is in high value table dates (khajoor) and only 10 percent of those are Grade A, 60 percent are Grade C. The majority of dates grown are dried dates (chuhara), the majority of which are exported to India

to be used in religious ceremonies, where they are thrown into the Ganges. Improved tissue culture, orchard management, and harvesting practices, could increase the production of Grade A table dates, thus increasing income.

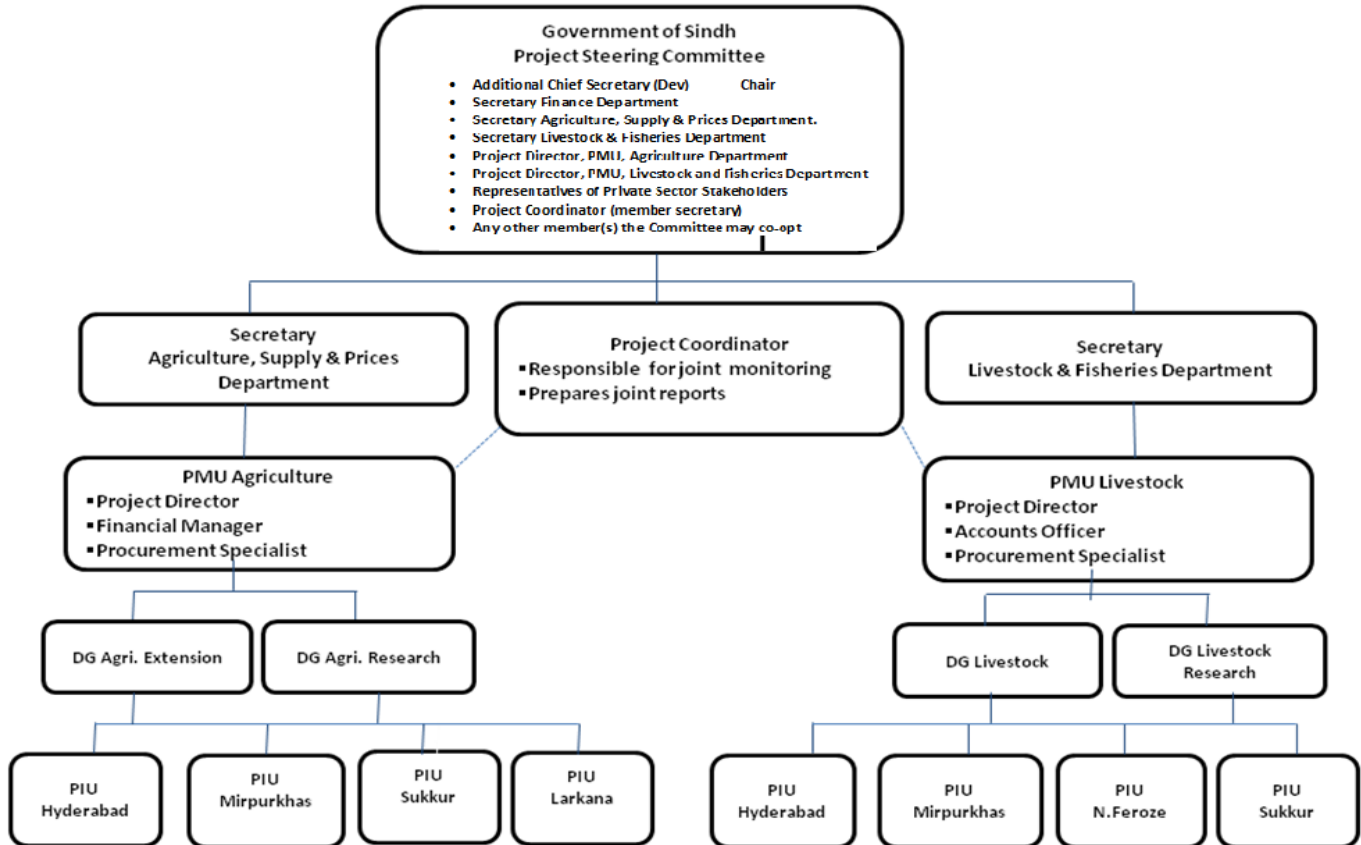
A. Project Beneficiaries

The proposed project would contribute to more inclusive growth by prioritizing support to small producers with interest in increased market participation. To achieve this, the project will use a value chain approach to provide direct investment support for: (i) development of more effective and efficient farming systems; (ii) introduction of technology packages for increased productivity and value addition, and; (iii) improved market access. The project would further contribute to accelerated growth by supporting more effective institutional and policy development. The project will be provincial in scope but specific activities may be concentrated geographically based on agro-ecological conditions or natural clustering of economic activities. It is expected that beneficiaries will be able to establish effective and efficient production systems and create market linkages.

IMPLEMENTATION ARRANGEMENTS

The Department of Agriculture, Supply & Prices and the Department of Livestock and Fisheries will jointly be responsible for implementing the project and for ensuring that the project development objectives are met. The two Departments will be responsible for implementation of their respective components as well as project management. The project would largely be implemented through the existing structures of the two Departments for delivering local agriculture and livestock extension and research services. However, both Departments would be augmented with additional technical and project management capacities to support the implementation.

Implementation Arrangements



PROJECT STEERING COMMITTEE (PSC)

A Project Steering Committee (PSC) will be constituted under the chairmanship of Additional Chief Secretary (Dev) P&D Department for review and monitoring of the project. The PSC would review progress and will meet every six months or as need to perform tasks including approval of annual work plans and review of project's financial reports and audit reports (internal and external). It would also look into mid-course correction, and issuing guidelines for smooth implementation of the project. The PSC members will include:

- Additional Chief Secretary (Dev) Chair
- Secretary Finance Department
- Secretary Agriculture, Supply & Prices Department.
- Secretary Livestock & Fisheries Department
- Project Director, PMU, Agriculture Department
- Project Director, PMU, Livestock and Fisheries Department
- Representatives of Private Sector Stakeholders
- Project Coordinator (member secretary)
- Any other member(s) the Committee may co-opt

Project Coordination Unit:

A liaison office in the form of Project Coordination Unit (PCU) would be established headed by a Project Coordinator (PC) within the Planning and Development Department, Government of Sindh. The PCU would ensure joint monitoring, reporting and effective coordination amongst the line agencies including Agriculture and Livestock & Fisheries Departments as well as with the World Bank, Project monitoring and impact evaluation studies and supervision of the overall Environmental and Social Monitoring Plan (ESMP). The project coordinators office would house the M&E consultant for overall project monitoring and for tasks including baseline development, joint reporting and for Project Management and Information System (PMIS) establishment and operationalization etc. and the project's activity, development of Sindh Agricultural development strategy will also be implemented by the office of the Project Coordinator.

Project Management

Project Management Unit: Two Project Management Units (PMUs) would be established in the Department of Agriculture, Supply & Prices and Department of Livestock & Fisheries respectively headed by Project Directors who are appointed by the Government. The position of a Project Coordinator will be established to ensure that joint monitoring, reporting and coordination takes place with the help of two Departments.

The PMUs would be responsible for overall project management, monitoring and supervision, as well as fiduciary and safeguards implementation and compliance. The PMUs will have project management and implementation staff with adequate qualification and expertise. The PMUs and where needed, would be provided with additional technical support through consultants.

The PMUs will take the lead role in planning, coordinating and monitoring of project performance in line with the project implementation schedule, and facilitate regular decision making for quality and in time implementation of various components. The PMUs will also be responsible for ensuring that resources are budgeted as per approved Project Implementation Plans. The PMUs will have procurement and financial management responsibilities and will ensure that project accounts are managed and audited on time. Specific responsibilities of the PMUs would be:

		<ul style="list-style-type: none"> • Preparing annual Project Implementation Plans (PIPs). The Agriculture and Livestock PMUs will prepare respective PIPs, which will be consolidated by the Project Coordinator into a single PIP for seeking approval of the PSC and sharing with the Bank task team • Ensuring timely implementation according to the PIP including budgets, procurement plans and agreed quality controls • Preparing procurement packages and overseeing technical quality of contracts • Coordinating and providing technical and project management support to the field implementation teams at the respective Project Implementation Units • Informing, supporting, coordinating and interacting with the key project partners and ensuring participation from project stakeholders as well as coordination with other development partners • Reporting on the results of monitoring and evaluating all aspects of the project inputs, outputs and outcomes, as well as facilitating learning and stock taking for course correction during the project implementation • Implementing and monitoring project risk management measures and accountability and information sharing mechanisms • Disclosing project implementation information available through websites and other means of communication for enhanced transparency on project implementation and achievement of results • Maintaining a robust grievance redressal mechanism which is fully communicated to the project stakeholders <p>2. The PMUs would be adequately staffed and would also be supported by additional technical assistance and monitoring support. The Project Coordinator’s office would</p>
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		<p>house the M&E consultants for the overall project and for tasks including baseline development, joint reporting and monitoring, management and information system (MIS) establishment and operationalization, etc.</p> <p>3. <i>Project Implementation Units:</i> At the district level, Project Implementation Units (PIUs) will be established to provide support staff, training and equipment to build capacity and strengthen the arrangements already in place, mainly the existing Research and Extension wings of the Department of Agriculture and Department of Livestock. The PIUs would be provided with capacity building so that they can access and use a greater range of information products, decision tools, and manage field demonstrations.</p> <p>4. A total of eight (8) PIUs will be established; for Agriculture Hyderabad, Mirpurkhas, Sukkur & Larkana districts. For Livestock Hyderabad, Mirpurkhas, Naushroferoze and Sukkur districts. The PIUs would have adequate staff to ensure all implementation responsibilities are properly resourced. The PIUs will be responsible for the operational management and implementation of the specific sub-components. The PIUs will report to respective PMUs for day-to-day management and implementation of project sub-components and will be supported by implementation as well as fiduciary staff of the PMUs. Specifically the PIUs would be responsible for:</p> <ul style="list-style-type: none"> • Feeding into the preparation of Project Implementation Plans (PIPs) and annual budget projection and planning. The field PIPs will feed into preparation of the single PIP for seeking approval of the PSC and sharing with the Bank task team • Ensuring timely implementation according to the PIP including budgets, procurement plans and agreed quality controls • Providing detailed information for preparation of the procurement packages to respective PMUs as well as supervising contract implementation at field level • Informing, supporting, coordinating and interacting with the farmers and producers at the district and sub-district levels
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		<ul style="list-style-type: none"> • Preparing regular, monthly and quarterly progress reports that feed into the overall project implementation reporting on the results of all aspects of the project inputs, outputs and outcomes • Ensuring information availability to farmers and producers on project implementation and provide timely responses to requests for information from beneficiaries and other stakeholders. • Implementing the grievance redressal mechanism
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		<p>Project Management and Monitoring and Evaluation:</p> <p>This component would finance the costs for Project Management Units (PMUs) and the Project Coordinator’s office. Financing would be provided for impact evaluation, communications strategy, grievance redressal mechanism (GRM), independent third party monitoring, establishment of a management information system (MIS) and overall monitoring of the implementation of Environment and Social Management Framework (ESMF). The Impact Evaluation, MIS and third party monitoring will be implemented by the Project Coordinator whereas overall monitoring and evaluation, GRM and communication strategy will be implemented by the respective PMUs and the PIUs.</p>
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		<p>Funds Flow Arrangements</p> <p>A segregated Designated Account would be opened for each of the departments (PMUs) into which Bank funds would flow. Funds would be disbursed on the basis of forecasts for six months and account thereof would be submitted on a quarterly basis in the form of agreed Interim Financial Reports (IFRs). Funds would be transferred on the basis of monthly forecast from the DA to the Departmental (PIU) bank accounts to be opened for the purposes of the project on the basis of approved forecasts. PIUs would render account of the funds received and spent to the PMUs within fifteen days of the month end. Expenditure in respect of the Project Coordinator’s office would be incurred from the Agriculture Department’s Designated Account. Expenditure would be reported by component to facilitate preparation of IFRs by the respective PMUs. Bank accounts would be operated jointly by two signatories.</p>
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A Finance Manager and Accounts Officer would be recruited for the Agriculture Department PMU from the market. Their terms of reference would be cleared with the Bank. An Accountant and an Accounts Clerk is already placed in each of the PIUs that are four in number for the Agriculture component (Hyderabad, Larkana, MirpurKhas and Sukkur). These positions have been provided for in the cost tables of PC-1.

Most of the financial management staff in the Livestock & Fisheries Department do not have accounting qualifications but have been performing these functions for many years. An Accounts Officer would be recruited from market for the PMU of the Livestock and Fisheries Department to support the Section Officer (Budget & Accounts) already in place. An Assistant Accounts Officer each would be recruited for the eight District PIUs.

Project staff at various levels would be provided training in maintaining books of account and preparing financial reports for the project.

Internal Controls

At present, there are no internal audit arrangements in either Agriculture or Livestock and Fisheries Departments and it is recommended that this important element of financial management be out sourced. Internal audit would cover receipts, payments, inventory management and control environment. As per Government rules, every department has to carry out a physical check on an annual basis.

The implementing agencies will ensure that Bank's guidelines (dated January, 2011) on Prevention and Combating Fraud and Corruption in Bank Financed Projects are followed in the project.

Audit

Project's annual financial statements audited by the Auditor General of Pakistan would be provided to the Bank within six months of the close of each financial year.

DETAILS OF COMPONENTS

The SAGP would contribute to more inclusive growth by prioritizing support to small producers with commercial potential. The project would be implemented over a period of five years and would have the following components:

Agriculture Sector

Capacity Building and Institutional Development:

The project (component) will implement through the Directorates of Research and Extension and the Department of Livestock and Fisheries. Consultations with both clients identified several capacity building and institutional development needs, which this component will finance in addition to capacity building of producers. This component will finance activities around technology development, technology dissemination, capacity building, and strategic planning for Sindh's agricultural sector.

Capacity Building of Producers. The project will finance training and capacity building for farmers, which will be based on training needs assessment carried out by the departments and their technical assistance providers. Training will include areas such as, good agricultural practices, agribusiness management, negotiating in the market, basic accounting, record keeping, etc. This will be done through a mixture of demonstration plots, public information campaigns, face-to-face training, and farmer-to-farmer study tours, and exposure visits to other production areas within province or elsewhere in the country as well as in other countries in the region as appropriate. For each value chain, the department will sponsor stakeholder forums to facilitate dialogue with and among value chain actors that will increase the market orientation of departmental activities. Under the project, these forums will focus on the targeted commodities, but the exercise will build the capacity of the department to carry out stakeholder engagement for other crops in the future. These activities will be mainly organized by the implementing agencies.

Modernization of Extension Services and Agricultural Research.

This subcomponent will finance: (a) technical assistance and capacity building to the implementing departments; (b) modernization of existing programs and facilities managed by the departments; and (c) supporting the continuation of a competitive fund for adaptive research that responds to the demands of the farmers and producers.

Technical assistance and capacity building. The project will finance the extended presence of a technical assistance consultant/firm who will (a) assist with the design and implementation of investments in Component B, (b) general strategic planning and management, and (c) designing and

delivering effective capacity building components. The consultant/firm will have a results-based contract that will specify the delivery of the 3 activities listed above as well as building the capacity of staff in each Department to continue implementing new approaches and procedures after the project intervention. Additional technical assistance and training will be sought through twinning arrangements with international agencies (such as, the International Livestock Research Institute; Food and Environment Research Agency, FERA-UK; etc.) and national agricultural research systems. Training methods may include, off-site residential training programs, in-service training for departmental staff, and national/international study tours.

Modernization of programs and facilities. Both the Agriculture Department and the Livestock & Fisheries Department have facilities that were affected by the 2010 and 2011 floods, and the project will provide a modest amount of financing to facilitate their rehabilitation. In addition, it will provide support to establish and/or rehabilitate facilities critical to fulfilling the requirements of the project—including, the agricultural research centers at Tando Jam and Mirpurkhas, chilli research station at Kunri, onion research center at Tando Jam, date research center at Khairpur and establishing linkages with existing date tissue culture facility in Karachi, an artificial insemination training center of Sindh Agriculture University at Tando Jam, and a semen production unit at Karachi (cow) and Rohri (buffalo). Rehabilitation of additional facilities will focus on targeted districts.

Modernization of extension services by introducing ICT-based technologies. To reach remote farmers the project will contract based on competitive selection, a firm to design and provide ICT-based technologies and services suitable for delivery of agriculture extension and marketing services to farmers/producers. These would include information going out to small producers and other stakeholders through the use of mobile phone and other ICT tools including 24/7 call center and proactive websites and other communication tools. The program of ICT-based extension services will be focused on the targeted commodities and groups in Component B. Based on performance of the services, the ICT-based extension service may expand to additional commodities.

Competitive Agricultural Research Development Fund

The project will finance a program of competitive agriculture research development fund, supporting demand oriented and result based research on agriculture crops. The program would

also include strengthening and improvement of agriculture research & extension services in basic infrastructure and human resource development. The program will be managed by Department of Agriculture in collaboration with scientists, Agriculture University Tandojam and other collaborative institutions in Sindh as well as in Pakistan. Agriculture development strategy will also be framed for this purpose with the consultation of all stakeholders and approved by the project steering committee. The research proposals will be reviewed based on agreed criteria outlined in an operational manual. Most of the funded research programs would be required to be able to yield results within the lifetime of the project. Details are attached at Annexure-VIII.

Strategic Planning for the Agricultural Sector:

The project will finance the development of Sindh Agricultural Development Strategy.

This will set a long-term development and growth vision for Sindh's agriculture agenda, broadly defined. The strategy will outline the holistic agenda to improve the efficiency and competitiveness of Sindh's agriculture sector while promoting pro-poor rural development. To more accurately forecast needs of the sector relative to pricing, climate change impacts, shifts in consumer demand, etc. Government of Sindh will commission economic modelling of specific trends to develop models of potential impacts that must be considered. Strategy development will be managed by the office of the Project Coordinator (see Component C) and guided by the Project Steering Committee (PSC). The project will finance background studies and analysis for the strategy, facilitation of the PSC interactions, and targeted exposure visits for senior officials to identify new information and directions in the strategy development. The facilitation, analysis, and exposure visits will be procured by the Agriculture Department.

Investment for Agricultural Growth:

This component finances actual investments in selected value chains of horticulture, rice and dairy. The component would also finance a demand driven investment fund to support farmers and producers with infrastructure and technology innovations support in the selected value chain.

Selection criteria

Applications will be invited through newspapers from the interested growers / farmers, the facility will be provided to farmers on first-come-first-serve basis, if the applications are received more than the target then balloting shall be carried out.

Categories of farmers/growers

1. Small Farmers with land holding from 1 to 25 acres
2. Medium Farmers with land holding from 26 to 50 acres

Horticulture Value Chains

The project will finance investments in three (3) horticulture crops – dates, onions and chillies. The key focus will remain on adopting good agricultural practices for production and post-harvest handling of the selected crops.

Dates crop. The project would finance investments in good agricultural practices for improved crop husbandry, tools for pre- and post-harvest processes including, mats for spreading dates in the sun, disease control kits, moisture testing meters, conductivity meters, tree pruner, pollinator guns, harvesting tool, solar dryers, hand carts, plastic crates, tarpaulin sheets, etc. would be provided to small and medium growers on a 30-70 percent cost sharing basis. Technology would be provided on a 70-30 cost sharing basis with the farmer or farmer group providing their 30 percent of the cost to DoA, which would then notify a supplier in close proximity to the farmer/farmer group to deliver the implement/tool.

For the longer-term development of the date crop, the project will invest in 150 demonstration farms of 10 acres each over the period of the project. Setting up the demonstration farms will involve: (a) importing tissue culture of improved varieties; (b) establishing a tissue culture laboratory; (c) promoting nursery enterprises. The funds for establishing model farms and nursery enterprises will be provided to interested growers on 30/70 percent cost sharing bases.

The expected results from date crop interventions would increase the productivity by 15% percent in 20% of crop due to pre and post harvest loss reduction. Further about 7,980 farmers will be trained in best farming practices.

Onion crop. The project would provide extension services for correct plant husbandry, both as a pure stand and an intercrop, fertilizer application, spraying techniques, weed and disease control, harvesting, curing and drying. The integrated pest management extension would focus on developing an environmentally sensitive approach to pest management. Under pest and disease management, thrips, damping off, bulb rotting and downy mildew would be of primary concern. The project would also finance technology packages which may include, but not limited to, onion

diggers, curing and storage facilities to increase shelf life, mechanical dryers, seed threshers, and ancillary equipment, etc. The financing of the tools and equipment will be provided on cost sharing where growers will contribute 30 percent.

The expected results from onion crop interventions would increase the productivity by 30% percent in 20% of crop due to pre and post harvest loss reduction. Further about 33,360 farmers will be trained in best farming practices.

Chilli crop. The project will focus on improving yields and reducing the level of aflatoxins in the chilli crop. The reduction in aflatoxins is directly in response to the urgent need of improved food safety of the chilli crop for domestic market as well as for facilitating opening of exports to more desirable markets, thus boosting farmer incomes and foreign exchange earnings. Rehabilitation and up gradation of the Kunri chilli research station in district Umerkot would also be financed. In addition, technology packages for reducing aflatoxin contamination through introducing polyester drying mats, along with similar sheets to cover the crop to prevent dew formation on the harvested crop would be provided to famer and grower associations on 30 percent cost sharing bases. The project would facilitate a public-private partnership involving the Chilli Growers Association to establish a common facility center in Kunri, which will house equipment and other implements to improve post-harvest handling of chillies. Project financing of the facility will be contingent on an approved business plan and secured co-financing. Depending on the size of the facility, IFC support may be sought during implementation.

The expected results from chilli crop interventions would increase the productivity by 30% percent and 50 percent reduction aflotoxin level in 20% of crop. Further about 31,020 farmers will be trained in best farming practices.

Rice Post-harvest Loss Management.

To stem the loss of 30-40% of the rice crop due to poor processing practices, this subcomponent will finance threshers for farmers and paddy dryers for small mill operators. In addition, the project will provide soil and moisture testing kits, conductivity meters, etc. The project would also promote knowledge sharing and learning from other rice producing countries for potential modernization in Sindh's rice production management. Financing for the threshers and dryers would be provided on 50 percent cost

sharing basis (in accordance with current government practice) to groups of farmers, small mill operators, and individual medium-scale farmers. The smaller technology inputs would be provided on a 70-30 cost sharing basis.

The expected results from rice crop interventions would increase the productivity by 20% percent in 20% of crop due to pre and post harvest loss reduction. Further about 40,000 farmers will be trained in best farming practices.

Demand Driven Innovation Fund. The project would establish a demand driven innovation fund to respond to the needs as identified during implementation for small inputs that supplement the project objectives of improved productivity and market access. This Fund will work on demand from the farmers and producers and will address infrastructure needs including, but not limited to, farm-to-market access, market up-grading, on-farm water storage tanks, cattle sheds, feed platforms, etc. In addition, the Fund will also respond to the demands for technology innovation in the selected value chains. The identification, planning and selection criteria along with procedures to implement the Fund would be included in the Operational Manual.

Livestock Sector

The majority of Sindh residents are directly or indirectly engaged in agriculture, producing significant amounts of the nation's milk (27%), beef (27%), mutton (21%), and poultry products (18%). In addition livestock provides financial security and a risk mitigation strategy, plus draft power and by-products such as wool, hides and manure. The actual contribution to provincial gross domestic product (GDP) is not known, although it is estimated to be on par with the national average. The rate of employment of the population in the livestock sector (more than 50%) as opposed to other agricultural sectors is higher than national average. From the 2006 Census, numbers of livestock are 6.9 million cattle, 7.3 million buffalo, 12.6 million goats, and 3.9 million sheep.

The dairy sector is characterized by a large number of smallholders in the rural areas, and 'dairy colonies' around Karachi and some of the other larger cities in Sindh are all very commercial. Besides its importance in the national economy, livestock rearing is an integral part of socio-economic activities of the rural areas and plays a very supportive role in mitigating the effects of poverty by providing essential items of daily use. The dairy sector is an important source of regular income for the rural community and offers ample scope for improvement. The competition for raw milk provides a good starting point to invest in farm

development: smallholders and medium scale farmers that can be motivated to improve their efficiency and productivity, responding to a growing demand for raw milk.

The following Tables shows livestock population in the targeted districts as per census of 2006.

District	No. of Taluka's	Total area (000 km ²)	Large ruminants		Small ruminants	
			Cattle	Buffaloes	Sheep	Goats
Khairpur	8	15,910	493,427	527,875	109,174	900,463
Nausheroferoz	3	2,945	334,758	530,530	51,564	820,422
Hyderabad	4	5,519	76,484	309,163	29,134	295,962
Thatta	9	17,355	410,614	367,117	162,131	351,366
Sukkur	5	5,165	211,623	196,505	47,472	249,589
Larkana	4	7,423	216,199	531,329	52,237	248,057
Mirpurkhas	6	2,925	201,533	234,348	67,922	666,012
Shaheed Benazirabad	4	4,502	339,188	390,259	101,810	877,509

Due to lack of improvement in genetic resources, delay in attaining puberty, shortage of optimal feed, high disease incidence, lack of an organized marketing system for livestock, Insufficient facility for research, shortage of veterinarians, lesser infrastructure facility in rural area and the maintenance of traditional farming practices are the major constraints hampering the production.

The Project will support in the following areas:

A: Capacity Building and Institutional Development:

The project will implement through the Department of Livestock and Fisheries. It identified several capacity building and institutional development needs, which this component will finance in addition to capacity building of producers. This component will finance activities around technology development, technology dissemination, capacity building, and strategic planning for Sindh's Livestock sector.

A.1: Capacity Building of Producers The project will finance training and capacity building for farmers, which will be based on a training needs assessment carried out by the department and its technical assistance providers. This will be done through a mixture of public information campaigns, face-to-face training, and farmer-to-farmer study tours, and exposure visits to other areas within province or elsewhere in the country as well as in other countries in the region as appropriate. For each value chain, the department will sponsor stakeholder forums to facilitate dialogue with and among value chain actors that will increase the market orientation of departmental activities.

Technical assistance and capacity building. The project will

finance the extended presence of a technical assistance consultant/firm who will (a) assist with the design and implementation of investments in Component B, (b) general strategic planning and management, and (c) designing and delivering effective capacity building components. The consultant/firm will have a results-based contract that will specify the delivery of the 3 activities listed above as well as building the capacity of staff in the Department to continue implementing new approaches and procedures after the project intervention. Additional technical assistance and training will be sought through twinning arrangements with international agencies (such as, the International Livestock Research Institute) and national institutions. Training methods may include, off-site residential training programs, in-service training for departmental staff, and national/international study tours.

Modernization of programs and facilities. The Livestock Department Sindh has facilities that were affected by the 2010 and 2011 floods, and the project will provide a modest amount of financing to facilitate their rehabilitation. In addition, it will provide support to establish and/or rehabilitate facilities critical to fulfilling the requirements of the project-including an artificial insemination training center at Sindh Agriculture University Tando Jam, and a semen production unit at Karachi (cow) and Rohri (buffalo). Rehabilitation of additional facilities will focus on targeted districts.

Through establishment of Artificial Insemination Training Technique Institute not only to provide facilities of Training to technical / Para technical staff of public sector but also private sectors dairy farmers will be trained. This will full fill the gap of trained main power, this will continue in future and also meet the demand of future with the help of this training program.

At present the government operates two semen production units, but these units are outdated and need strengthening, the project will assist in development of the necessary structures for both at Karachi and Rohri.

B: Dairy Value Chain: The project will finance formation of approximately 153 milk producers groups (MPGs) in 8 districts. It will target small and medium milk-producing households, but since women are involved in at least 80 percent of production management, the project will also provide services exclusively targeting women (e.g., extension messages, female extension agents, etc.). The number of MPGs per district will vary according to the animal population and market linkage. Essentially, each MPG would have a

production capacity of 1,000 liters each day. Initial targeting will focus on identified “milk pockets” in the 8 districts. Through meetings in these targeted areas, producers will be informed of the project and given the rules for forming an MPG. Criteria for acceptance into the project will be outlined in the operational manual. The mobilization of MPGs will be done by the private sector milk processors, the district project management unit, and the Department PMU at the provincial level. Arrangements for producers to access markets will vary based on the existence of a competitive field of private sector actors. They could include, direct tie-ups with traders or processors, or community chilling units that allow the MPG to negotiate with different actors on a competitive basis.

The MPGs would be able to access services including: (i) information and training on market oriented dairy farming, balanced feeding, appropriate breeding practices and disease control; (ii) 1,000 liter milk chillers and operating knowledge; (iii) milk quality testing equipment and training to maintain verifiable records of quantity of milk collected and sold, as well as records of income and expenditure. The Department will provide hand-holding support to an MPG that manages its own chiller installation, to ensure long-term sustainability of the asset. A dairy nutritionist would be available as part of extension services to advise least cost concentrate mixtures, the quality evaluation of procured feed/rations and the development of an appropriate feeding strategy. Women entrepreneurs would be identified in consultation with farmers and will be trained in animal husbandry and extension practices and these women would be provided with some equipment and goods (milk testing kits, concentrate mixture) which they acquire on certain terms from the project and use as income generation as part of their extension delivery.

Any investments in equipment or other technology for production and storage would be provided through matching grants with a cash or in-kind contribution from the MPG on a 70/30 cost sharing basis.

The activity of milk collection and bulking will be carried out on community basis in eight districts. The livestock department will play vital role in developing linkages between milk processors and community. The activities will be started in any two districts first with the consultation of stakeholder of project in first year and would be expanded by adding two more districts by each year over a period of four years. The following Table summarizes development of the centres:

Table : Milk collection and marketing

Years	District	Total in 8 districts				Remarks
		MPGs	Villages	Animals	Milk	
Two districts in each year (4 years) The sequence of the district will be decided by Livestock department on the basis of demand	Hyderabad	153	765	30600	153000	One MPG covers 5 villages, 40 animals in each village, 5 kg milk per animal Note: No. of villages in each MPG could be changed
	Thatta					
	Mirpurkhas					
	S.Benazirabad					
	Nausheroferoze					
	Khairpur					
	Sukkur					
	Larkana					

C: Project Management and Monitoring and Evaluation.
 The project will be implemented through collaboration with three Directorates (DAH, DCVDL, and DAB) and by the establishing Project Management Unit (PMU). To implement the project at targeted districts, 4 Project Implementation Units (PIUs) in targeted districts will also be formulated.

Under this component, a facility for dissemination of information to the milk producers/farmers has also been made available. This will be utilized by the Department of Livestock for the benefit of the project.

- Provide technical parameters i.e. input and output of the project in quantitative terms. Also discuss the technology aspect of the project.

<ul style="list-style-type: none"> Provide details of civil work and other facilities required for the project. 	<p><u>Existing Facilities:</u></p> <p>Technical man power (vets & para vets) are available in all 08 project districts.</p> <p>Mobile Veterinary services are available in all 08 project districts.</p> <p>Disease surveillance and diagnostic facilities are available in 04 project districts i.e. Hyderabad (Tando Jam), Naushahro Feroze, Larkana and Sukkur.</p> <p>Artificial Insemination facilities are available in all 08 project districts in small scale.</p>
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Liquid Nitrogen Gas Plant (LNG) is available at Hyderabad, for supply of LNG to maintain cool chain.

Rehabilitation of 121 institutes of DAH / DCVDL / DAB in the Rain / Flood affected areas:

A. Rehabilitation:

- | | |
|--|-----|
| i. Veterinary Hospitals/Dispensaries/Centres/Store | 100 |
| ii. CVDL Sub Centres | 06 |
| iii. Livestock Production Offices | 13 |
| iv. Strengthening of SPU Karachi and BIC Rohri | 02 |

B. Establishment:

- | | |
|--|----|
| i. Artificial Insemination Training Centre | 01 |
|--|----|

Technologies are available locally and there will be no such difficulty in achieving targets.

Civil works is required under Components A and B, detail is provided in cost Tables placed Under Annex-I.

The proposed civil work will be carried out through project consultants.

The project will aim to improve access to markets by developing village level milk collection and bulking facilities and increase animal productivity through breed improvement and nutrition services. It will strengthen the chain between producer and consumer of dairy products and provide the direct support to the farming community through on-farm supports and veterinary services (treatment, vaccination, screening of diseases, artificial insemination, feeding management etc.)

Since the Project is a Component of Sindh Agriculture Growth Project, an umbrella PC-1 will be prepared by the Department of Agriculture, Govt. of Sindh, including this component.

Overall economic, including livestock component, analysis has been presented showing the economic viability and financially acceptability of the project. The benefits of livestock component would further support its justification.

7.	<p><u>Capital cost estimates</u></p> <ul style="list-style-type: none"> ▪ Indicate date of estimation of project cost estimates. ▪ Basis of determining the capital cost be provided. It includes market survey, schedule rates, estimation on the basis of previous work done etc. 	<p style="text-align: center;">July, 2013.</p> <p>Cost estimates are based on open market prices.</p>
	<ul style="list-style-type: none"> • Provide year-wise estimation of physical activities as per following: 	<p>Details of cost and physical estimates of Agriculture component Annexure-III and Livestock component at Annexure-IV.</p>

Project Cost Summary - Component wise

Pakistan
Sindh Agriculture Growth Program

		Base Costs and Contingencies					(Rs Million)
Sr	Component	Year-1	Year-2	Year-3	Year-4	Year-5	Total
A	Capacity Building and Institutional Development	287.450	534.605	456.627	413.809	123.950	1,816.442
B	Investment for Agricultural Growth	523.046	1,279.665	1,427.774	1,473.684	1,225.083	5,929.253
C	Project Management and Monitoring and Evaluation	269.253	160.096	160.430	167.266	195.729	952.774
	Total Base costs	1,079.750	1,974.366	2,044.831	2,054.760	1,544.763	8,698.470
	Third Party Monitoring (0.5%)	5.399	9.872	10.224	10.274	7.724	43.492
	Physical Contingencies (1%)	10.797	19.744	20.448	20.548	15.448	86.985
	-	-	5.048	13.466	17.478	2.524	38.516
	Total Project Costs	1,095.946	2,009.030	2,088.970	2,103.059	1,570.458	8,867.463

Pakistan
Sindh Agriculture Growth Program
Project Cost Summary - Component wise

		Costs Including Contingencies					(Rs Million)
Sr	Component	Year-1	Year-2	Year-3	Year-4	Year-5	Total
A	Capacity Building and Institutional Development	291.762	546.725	471.678	432.634	128.333	1,871.132
B	Investment for Agricultural Growth	530.892	1,299.808	1,454.455	1,500.650	1,243.460	6,029.265
C	Project Management and Monitoring and Evaluation	273.292	162.497	162.836	169.775	198.665	967.066
	Total Project Costs	1,095.946	2,009.030	2,088.970	2,103.059	1,570.458	8,867.463

Pakistan
Sindh Agriculture Growth Program
Financing Plan

		Costs Including Contingencies					(Rs Million)
Description	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Total	
Community Share	76.658	283.610	295.550	304.329	266.079	1,226.225	
IDA Contribution	1,019.288	1,725.420	1,793.420	1,798.730	1,304.380	7,641.238	
Total	1,095.946	2,009.030	2,088.970	2,103.059	1,570.458	8,867.463	

Summary of Financial Contribution

IDA Share	7,641.238
Farmer Share	1,226.225
Total	8,867.463

	In case of revised projects, provide	
i	Project approved history along with PSDP allocation, releases and expenditure	Not Applicable
ii	Item wise, year wise actual expenditure and physical progress.	Not Applicable
iii	Justification for revision of PC-I and variation in scope of project if applicable.	Not Applicable
Iv	Item-wise comparison of revised cost with the approved cost and give reasons for variation.	Not Applicable
V	Exchange rate used to work out FEC in the original and revised PC-I's	Not Applicable

8	Annual operating and maintenance cost after completion of the project	<p>Under this programme all facilities will be provided to community / farmers. The O&M cost after completion of the project will be borne by the farmers / community/ stakeholders/ beneficiaries.</p> <p>However, after the successful completion of Project, the Artificial Insemination Training Centre will be proposed to change in non-development side to continue the activities of training and the operating cost will be requested by Sindh Government as under</p> <table border="1"> <thead> <tr> <th rowspan="2">Items</th> <th colspan="5">Annual operating cost for 5 years</th> <th rowspan="2">Total</th> </tr> <tr> <th>2018-19</th> <th>2019-20</th> <th>2020-21</th> <th>2021-22</th> <th>2022-23</th> </tr> </thead> <tbody> <tr> <td>Pav and Allowances</td> <td>11.101</td> <td>12.211</td> <td>13.432</td> <td>14.775</td> <td>16.252</td> <td>67.771</td> </tr> <tr> <td>Contingencies</td> <td>7.237</td> <td>7.96</td> <td>8.756</td> <td>9.631</td> <td>10.594</td> <td>44.178</td> </tr> <tr> <td>Total</td> <td>18.338</td> <td>20.171</td> <td>22.188</td> <td>24.406</td> <td>26.846</td> <td>111.949</td> </tr> </tbody> </table>	Items	Annual operating cost for 5 years					Total	2018-19	2019-20	2020-21	2021-22	2022-23	Pav and Allowances	11.101	12.211	13.432	14.775	16.252	67.771	Contingencies	7.237	7.96	8.756	9.631	10.594	44.178	Total	18.338	20.171	22.188	24.406	26.846	111.949
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9	Demand and supply analysis (for Industrial and Agricultural)	<p>Government of Sindh (GoSindh) has highlighted commercial agriculture and market linkages as priority investments for the sector. GoSindh has also prioritized investments in support of small and medium farmers and in value chains that will positively impact women.</p> <p>The proposed project would contribute to more inclusive growth by prioritizing support to small producers with interest in increased market participation. To achieve this, the project will use a value chain approach to provide direct investment support for: (i) development of more effective and efficient farming systems; (ii) introduction of technology packages for increased productivity and value addition, and; (iii) improved market access. It is expected that beneficiaries will be able to establish effective and efficient production systems and create market linkages.</p> <p>Economic Survey of Pakistan 2009 assertions that Pakistan has a herd size of around 63 million animals – the 3rd largest in the world and is the 5th largest producer of milk in the world.</p>																																	


		<p>Its industry volume of dairy products reached at US\$26billion in rural and urban areas on the increasing population and domestic local consumption however the total milk production is not fulfilling domestic human needs. In only Karachi the daily shortage has been reported at approximately four million litres. It is anticipated that the demand and supply gap is going to be 3.6 billion litres by 2015.</p> <p>The most significant reason for this gap is that the milk production is not increasing at the rate of 3% annually at which the per capita consumption and human population is increasing (Government of Pakistan, 2008-09). The production increase over the past years is not concerned with the productivity per animal but is due to an increase in total number of animals. For smallholding dairy farmers is the cattle and buffalos' milk productivity is not more than 4 liters to 5 liters per day for the whole duration of the lactation cycle; approx. 8 milk producing animals of Pakistan are equal to 1 animal of the developed world. The season also affects the supply of the milk, its production drops by 55 percent of peak production in May-June. While there is a 60 percent increase in the demand in this season as compare to December when there is abundant supply. In May the milk has low quality and low shelf life but the prices go high because of the shortage created in the market.</p> <p>After witnessing all the issues regarding the dairy industry of Pakistan, it can be concluded that the dairy industry possesses potential of growth and is very important from economic perspective, but Pakistan needs to have a coordinated and integrated strategy/approach beginning from enhancing animal productivity and minimizing the wastages.</p>
10.	Financial Plan	<p>The project will be completed in 5-years starting from October 2013.</p> <p>All components will be financed under IDA loan to Sindh Government except for any investments in equipment or other technology for production and storage would be provided through matching grants with a cash or in-kind contribution from the Farmers / Community on a 70/30 cost sharing basis. As per mutual understanding between World Bank and Government of Sindh, 100% financing will be provided by the World Bank through IDA credit.</p>


	<p>b. Debt Indicate the local & foreign debt, interest rate, grace period and repayment period for each loan separately. The loan repayment schedule be also annexed.</p>	<p>It is IDA Loan to Government of Sindh</p>
11.	<p>Project benefits and analysis.</p>	<p>Crop budget were prepared to show the production costs and revenues expected from the project targeted cropping activities in both scenarios: with and without the project interventions. It can be safely concluded that the proposed project investments are feasible from the financial perspective provided that at least 50 percent of the target farmers adopt the proposed.</p> <p>The aggregation of the area of the four selected crops to be focused induced adoption of technologies and post-harvesting improvements: together with the introduction of conversion factor (CF) to reflect the opportunity cost of good and services involved, allowed estimating the preliminary overall project's economic results.</p> <p>The proposed SAGP's Crop Growth subproject would increase the annual net economic benefit from the project beneficiaries by about 27.5 percent, from Rs.9.8 billion to Rs.12.5 billion. The Rs.8.7 billion (US\$87 million) investment required to develop the proposed subproject would have an overall Economic Rate of Return (ERR) estimated at 22percent and a Net Present Value (NPV) of Rs.4.6 billion (US\$46 million equivalent) with 12 percent used as discount rate.</p> <p>(Details appendix-1)</p>
	<p>Social Benefits with indicators</p>	<p>Through the project socio-economic activities of the livelihood will be improved.</p>
	<p>Employment generation (direct and indirect)</p>	<p>Project will create employment opportunities in value addition chain for farming communities and for private sector organizations</p>
	<p>Environmental Impact</p>	<p>The environmental burden (manure disposal and health risks) is a problem to society, but not considered of importance by these farmers. However, The project will have no adverse environmental effects. However, the project shall comply all the environmental obligation during the implementation of the project.</p> <p>The environmental plan is at Annexure-VI.</p>

	Impact of delays on project cost & viability.	Timely release of funds will not affect / delay the project																									
12.	a. Implementation Schedule.	Attached at Annexure-V.																									
	b. Result Based Monitoring (RBM) Indicators.	<table border="1"> <thead> <tr> <th rowspan="2">Input</th> <th rowspan="2">Output</th> <th colspan="2">Outcome</th> <th rowspan="2">Targeted Impact</th> </tr> <tr> <th>Baseline Indicator</th> <th>Targets after Completion of Project</th> </tr> </thead> <tbody> <tr> <td>Capacity Buildings & Institutional Development</td> <td>Trained manpower available in the farm of master trainers in the area of Agriculture, livestock dairy development.</td> <td>Training infrastructure and material available. Training in the targeted commodities has not been imparted on large scale.</td> <td>Provision of best training to the farmers</td> <td>Improvement in agriculture productivity and enhancement in livestock production.</td> </tr> <tr> <td>Investment for Agricultural Growth</td> <td>Provision of Agriculture Equipments & machinery on subsidized rates to the farmers.</td> <td>For post harvest losses of targeted commodities machinery and equipment are not provided except for paddy crop.</td> <td>Yield per acre targets grower will be increased with enhancement of export.</td> <td>Improvement in agriculture productivity and enhancement in livestock production.</td> </tr> <tr> <td>Project Management & Monitoring & Evaluation.</td> <td>Better monitoring and supervision of the project interventions</td> <td>Management Information System (MIS) is to be developed.</td> <td>Qualitative improvement & achievement of the project smoothly</td> <td>Improvement in agriculture productivity and enhancement in livestock production.</td> </tr> </tbody> </table>				Input	Output	Outcome		Targeted Impact	Baseline Indicator	Targets after Completion of Project	Capacity Buildings & Institutional Development	Trained manpower available in the farm of master trainers in the area of Agriculture, livestock dairy development.	Training infrastructure and material available. Training in the targeted commodities has not been imparted on large scale.	Provision of best training to the farmers	Improvement in agriculture productivity and enhancement in livestock production.	Investment for Agricultural Growth	Provision of Agriculture Equipments & machinery on subsidized rates to the farmers.	For post harvest losses of targeted commodities machinery and equipment are not provided except for paddy crop.	Yield per acre targets grower will be increased with enhancement of export.	Improvement in agriculture productivity and enhancement in livestock production.	Project Management & Monitoring & Evaluation.	Better monitoring and supervision of the project interventions	Management Information System (MIS) is to be developed.	Qualitative improvement & achievement of the project smoothly	Improvement in agriculture productivity and enhancement in livestock production.
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13.	Management structure and manpower requirements including specialized skills during construction and operational phases	<p>The overall project has two PMUs each in Departments of Agriculture, Supply & Prices and Livestock & Fisheries to be coordinated through Project Coordination Unit.</p> <p>Details of Manpower Required are attached at Annexure-VII.</p>																									
14.	Additional projects/decisions required to maximize socio-economic benefits from the proposed project.	Not Required																									

15. Certified that the project proposal has been prepared on the basis of instructions provided by the Planning Commission for the preparation of PC-I for production sector projects.


PREPARED BY:



(DR. ATTA HUSSAIN SOOMRO)
DIRECTOR GENERAL
AGRICULTURE RESEARCH SINDH


(DR. ABDUL QADIR JUNEJO)
DIRECTOR ANIMAL BREEDING SINDH


(HIDAYATULLAH CHHAJRO)
DIRECTOR GENERAL
AGRICULTURE EXTENSION SINDH


CHECKED BY:

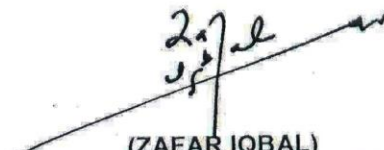

(MUHAMMAD AZAM GHANNA)
DIRECTOR, PLANNING & MONITORING CELL
AGRICULTURE DEPARTMENT


(DR. ALI AKBER SOOMRO)
DIRECTOR GENERAL LIVESTOCK
SINDH



(ABDUL QADIR TAREEN)
ADDITIONAL SECRETARY TECHNICAL
AGRICULTURE DEPARTMENT

APPROVED BY:


(IQBAL HUSSAIN DURRANI)
SECRETARY TO GOVERNMENT OF SINDH
AGRICULTURE DEPARTMENT


(ZAFAR IQBAL)
SECRETARY TO GOVERNMENT OF SINDH
LIVESTOCK & FISHERIES DEPARTMENT

Countersigned by


(ARIF AHMED KHAN)
ADDITIONAL CHIEF SECRETARY (DEV)
PLANNING & DEVELOPMENT DEPARTMENT
GOVT. OF SINDH




ANNEXURES

Agriculture

Annexure “I”



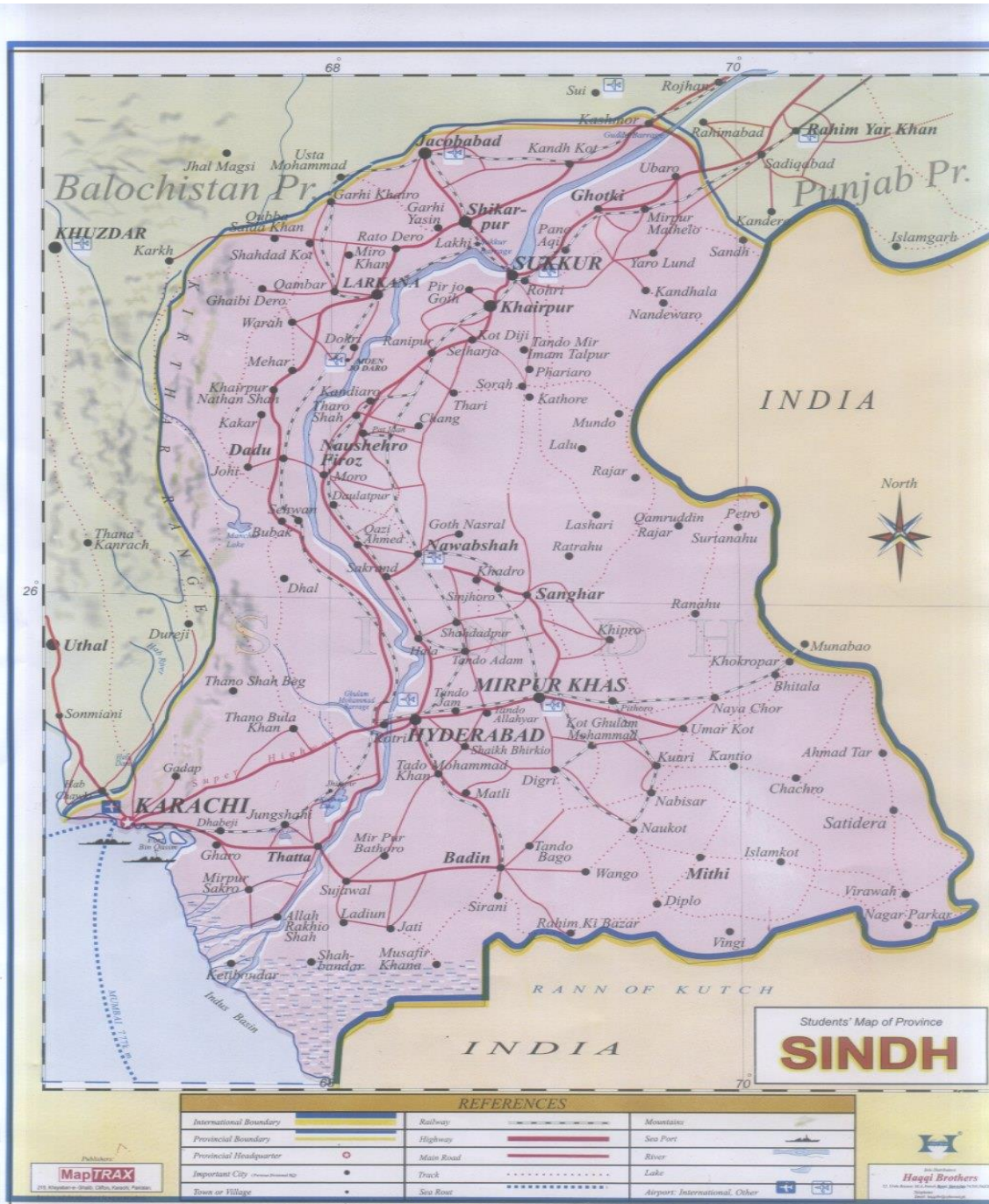
Crops locations

-  Date palm: Khairpur, District sub office at Larkana
-  Chillies: Kumri, District Umerkot, under Sub-HQ
-  Onion: Sanghar, Mirpurkhas, Matitari & Hyderabad

Rice: Larkana, Jaccobabad, Shikarpur, Kashmore, Kambar @ Shahdadkot, Thatta & Badin

Livestock

Annexure "II"



SUMMARY

Project Cost Summary - Component wise

Pakistan
Sindh Agriculture Growth Program

		Base Costs and Contingencies					(Rs Million)
Sr	Component	Year-1	Year-2	Year-3	Year-4	Year-5	Total
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Pakistan
Sindh Agriculture Growth Program
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Pakistan
Sindh Agriculture Growth Program
Financing Plan

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Community Share	76.658	283.610	295.550	304.329	266.079	1,226.225	
IDA Contribution	1,019.288	1,725.420	1,793.420	1,798.730	1,304.380	7,641.238	
Total	1,095.946	2,009.030	2,088.970	2,103.059	1,570.458	8,867.463	

Summary of Financial Contribution

IDA Share	7,641.238
Farmer Share	1,226.225
Total	8,867.463

Cost Estimates: Sindh Agriculture Growth Project (Agriculture Component)

Annexure-III

Pakistan
Sindh Agriculture Growth Program
Project Cost Summary - Component wise

Sr	Component	Base Costs and Contingencies					Total
		Year-1	Year-2	Year-3	Year-4	Year-5	
A	Capacity Building and Institutional Development	74.126	272.002	282.836	253.228	69.376	951.568
B	Investment for Agricultural Growth	263.943	1,076.585	1,076.093	1,118.356	1,025.356	4,560.333
C	Project Management and Monitoring and Evaluation	195.881	100.915	101.715	101.527	132.669	632.708
	Total Base costs	533.950	1,449.502	1,460.644	1,473.111	1,227.401	6,144.609
	Third Party Monitoring (0.5%)	2.670	7.248	7.303	7.366	6.137	30.723
	Physical Contingencies (1%)	5.340	14.495	14.606	14.731	12.274	61.446
	Total Project Costs	541.959	1,471.244	1,482.554	1,495.208	1,245.812	6,236.778

Pakistan
Sindh Agriculture Growth Program
Project Cost Summary - Component wise

Sr	Component	Costs Including Contingencies					Total
		Year-1	Year-2	Year-3	Year-4	Year-5	
A	Capacity Building and Institutional Development	75.238	276.082	287.078	257.026	70.417	965.841
B	Investment for Agricultural Growth	267.902	1,092.734	1,092.234	1,135.131	1,040.736	4,628.738
C	Project Management and Monitoring and Evaluation	198.819	102.429	103.241	103.050	134.659	642.199
	Total Project Costs	541.959	1,471.244	1,482.554	1,495.208	1,245.812	6,236.778

Pakistan
Sindh Agriculture Growth Program
Financing Plan

Description	Costs Including Contingencies					Total
	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	
Community Share	57.683	277.400	278.300	293.979	266.079	1,173.440
IDA Contribution	484.277	1,193.844	1,204.254	1,201.229	979.734	5,063.338
Total	541.959	1,471.244	1,482.554	1,495.208	1,245.812	6,236.778

Summary of Financial Contribution

IDA Share	5,063.338
Farmer Share	1,173.440
Total	6,236.778

Pakistan															
Sindh Agriculture Growth Program															
A Capacity Building and Institutional Development															
Quantities															
Rs. In Million															
Sr.	Description	Unit	Year-1	Year-2	Year-3	Year-4	Year-5	Total	Unit Costs Rs	Year-1	Year-2	Year-3	Year-4	Year-5	Total
A.1 Capacity Building of Farmers and Producers															
A.1.1	Stakeholder workshops in district 1/	Per event	10	34	34	34	25	137	200,000	2.000	6.800	6.800	6.800	5.000	27.400
A.1.2	Exposure Tours of Growers/Farmers (national)	Persons	-	50	34	30	-	114	100,000	0.000	5.000	3.400	3.000	0.000	11.400
A.1.3	Exposure Tours of Growers/Farmers (international)	Persons	-	18	18	-	-	36	650,000	0.000	11.700	11.700	0.000	0.000	23.400
A.1.4	Exposure Tours of Officials (international)	Persons	-	8	8	-	-	16	650,000	0.000	5.200	5.200	0.000	0.000	10.400
A.1.5	Technical and Advisory Services (Need Basis)	Man months	6	12	12	12	-	42	417,000	2.502	5.004	5.004	5.004	0.000	17.514
Sub-Total (A.1)										4.502	33.704	32.104	14.804	5.000	90.114
A.2 Training and Capacity Building of Officials and Growers															
A.2.1	Curriculum Development (outsourced)	Service	1	0	0	0	0	1	300,000	0.300	0.000	0.000	0.000	0.000	0.300
A.2.2	Training of Lead Trainers	Persons	50	0	0	0	0	50	30,000	1.500	0.000	0.000	0.000	0.000	1.500
A.2.3	Refresher Course of Lead Trainers	Persons	0	50	0	50	0	100	15,000	0.000	0.750	0.000	0.750	0.000	1.500
A.2.4	Resource Persons	Persons	12	0	0	0	0	12	300,000	3.600	0.000	0.000	0.000	0.000	3.600
A.2.5	Resource Persons for Refresher Course	Persons	0	12	0	12	0	24	150,000	0.000	1.800	0.000	1.800	0.000	3.600
A.2.6	Training of Growers	Lump sump							Lump sump	0.000	50.000	50.000	50.000	0.000	150.000
Sub-Total (A.2)										5.400	52.550	50.000	52.550	0.000	160.500
A.3 Publicity															
A.3.1	Production of TV Spots/Messages/Talk shows	Nos.	12	12	12	12	12	60	125,000	1.500	1.500	1.500	1.500	1.500	7.500
A.3.2	Documentary	Nos.	1	1	1	1	1	5	500,000	0.500	0.500	0.500	0.500	0.500	2.500
A.3.3	Hire channel telecast time	Hours	40	65	65	60	60	290	500,000	20.000	32.500	32.500	30.000	30.000	145.000
A.3.4	Telecast of scroll messages	Hours	66	67	67	100	100	400	150,000	9.900	10.050	10.050	15.000	15.000	60.000
A.3.5	Publicity through local cables	Vill/ Towns	40	40	40	40	40	200	25,000	1.000	1.000	1.000	1.000	1.000	5.000
A.3.6	Printing of Booklets/Pamphlets/Posters	(000) No	12	12	12	20	20	76	25,000	0.300	0.300	0.300	0.500	0.500	1.900
Sub-Total (A.3)										33.200	45.850	45.850	48.500	48.500	221.900
A.4 Goods															
A.4.1 Office Equipment, Furniture & Fixture															
a	Laptop (15 districts and 5 Institutes)	Nos.	20	-	-	-	-	20	80,000	1.600	0.000	0.000	0.000	0.000	1.600
b	Multimedia Projector	Nos.,	15	-	-	-	-	15	120,000	1.800	0.000	0.000	0.000	0.000	1.800
c	Training Material (bags, stationery, kits etc.)	Groups	500	1,700	1,700	1,700	1,250	6,850	10,000	5.000	17.000	17.000	17.000	12.500	68.500
d	Furniture & Fixture	sets	15	-	-	-	-	15	100,000	1.500	0.000	0.000	0.000	0.000	1.500
Sub-Total (A.4.1)										9.900	17.000	17.000	17.000	12.500	73.400
A.4.2 Vehicles															
a	Mobile publicity vans with LED, Display System, DVD Players and Allied Equipment		2					2	5,100,000	10.200	0.000	0.000	0.000	0.000	10.200
b	Passenger Van (30 seater) for training of Participants		1					1	7,600,000	7.600	0.000	0.000	0.000	0.000	7.600
Sub Total (A.4.2)										17.800	0.000	0.000	0.000	0.000	17.800
Total (A.4)										27.700	17.000	17.000	17.000	12.500	91.200
A.5 Competitive Agriculture Research Development Fund															
A.5.1	Genetic & improved production technologies of fruit, vegetable & field crops.	Lump sump							Lump sump	-	5.000	7.000	5.000	-	17.000
A.5.2	Work on the value addition & food technology of horticulture crops.	Lump sump							Lump sump	-	3.000	4.000	3.000	-	10.000

A.5.3	Development of quality seed of field, horticulture/ vegetable crops	Lump sump							Lump sump	-	8,000	14,000	13,000	-	35,000
A.5.4	Competitive Research Grant supporting result based research on crops	Lump sump							Lump sump	-	8,000	12,000	10,000	-	30,000
A.5.5	To improve the efficiency and competitiveness of Sindh's Agriculture sector by promoting pro-poor rural development programs	Lump sump							Lump sump	-	4,000	7,000	7,000	-	18,000
A.5.6	Integrating different crop production practices to lessen the impact of environment change.	Lump sump							Lump sump	-	3,000	4,000	3,000	-	10,000
A.5.7	Establishment & rehabilitation of new & existing district soil & water testing laboratories.	Lump sump							Lump sump	-	10,000	10,000	5,000	-	25,000
A.5.8	Strengthening of Research Institutes through equipment, machineries and capacity building of scientists	Lump sump							Lump sump	-	10,000	10,000	5,000	-	25,000
Sub Total (A.5)										0.000	51,000	68,000	51,000	0.000	170,000
A.6 Incremental Operating Costs															
A.6.1 Incremental Staff															
a	Drivers (BPS-5)	Person Months	36	36	36	36	36	180	10,000	0.360	0.360	0.360	0.360	0.360	1.800
b	Helpers for Mobile Publicity and Passenger Vans (BPS-1)	Person Months	36	36	36	36	36	180	7,000	0.252	0.252	0.252	0.252	0.252	1.260
	Provision for Annual Increment	Percentage								0.000	0.043	0.046	0.046	0.046	0.181
Sub Total (A.6.1)										0.612	0.655	0.658	0.658	0.658	3.241
A.6.2 Operating Costs Staff															
A.6.3	Vehicles (POL & Repairs)	Months	36	36	36	36	36	180	75,000	2.700	2.700	2.700	2.700	2.700	13,500
A.6.4	Software, films, coverage etc.	Lump sump							Lump sump	0.012	0.013	0.015	0.016	0.018	0.074
Sub Total (A.6.2)										2.712	2.713	2.715	2.716	2.718	13.574
Sub Total (A.6)										3.324	3.368	3.373	3.374	3.376	16.815
A.7 Infrastructure Modernization /Rehabilitation										0.000	68.530	66.509	66.000	0.000	201.039
sub Total (A.7)										0.000	68.530	66.509	66.000	0.000	201.039
Base Costs (Component A)										74.126	272.002	282.836	253.228	69.376	951.568
	Third Party Monitoring (0.5%)									0.371	1.360	1.414	1.266	0.347	4.758
	Physical Contingencies (1%)									0.741	2.720	2.828	2.532	0.694	9.516
Total Cost (Agriculture)										75.238	276.082	287.078	257.026	70.417	965.841
1. Local events at district headquarter level by Agriculture Extension															
2. Estimates for study tours and training of farmers at Punjab OFWM Training Institute, within the country and to India, Egypt etc. for outside the country.															
3. No travel needed, desk review															
4. Two days workshop 100-150 participants including 2-international															

	Pakistan															
	Sindh Agriculture Growth Program															
B	Investment for Agricultural Growth															
			Quantities								Rs. In Million					
Sr.	Description	Unit	Year-1	Year-2	Year-3	Year-4	Year-5	Total	Unit Costs Rs	Year-1	Year-2	Year-3	Year-4	Year-5	Total	
I	Investment for Agricultural Growth															
B.1	Horticulture Value Chains Date Crop															
B.1.1	Establishment of demonstration farms-10 acres each (High Density Orchards-70% project, 30% farmers)	Acr	10	20	30	40	50	150	200,000	2.000	4.000	6.000	8.000	10.000	30.000	
B.1.2	Solar dryer (70% by project & 30% by farmers)	Nos.	50	90	90	90	80	400	1,500,000	75.000	135.000	135.000	135.000	120.000	600.000	
B.1.3	Hand Carts (capacity 200kg) (70% project-30% farmers)	Nos.	1,000	2,000	2,000	2,000	2,000	9,000	13,000	13.000	26.000	26.000	26.000	26.000	117.000	
B.1.4	Plastic crates (70% by project & 30% by farmers)	(000) Nos.	70	70	70	70	70	350	600	42.000	42.000	42.000	42.000	42.000	210.000	
B.1.5	Tarpaulin sheets (70% by project & 30% by farmers)	(000) Nos.	20	50	50	50	50	220	400	8.000	20.000	20.000	20.000	20.000	88.000	
B.1.6	Disease control kit (70% by project & 30% by farmers)	Nos.	50	200	200	200	200	850	80,000	4.000	16.000	16.000	16.000	16.000	68.000	
B.1.7	Moisture testing meter (70% by project & 30% by farmers)	Nos.	50	200	200	200	200	850	20,000	1.000	4.000	4.000	4.000	4.000	17.000	
B.1.8	Lead trainers for date farmers	Person year	-	4	4	4	4	16	500,000	-	2.000	2.000	2.000	2.000	8.000	
B.1.9	Participatory technological development (PTD) Dates	Cropping	-	100	100	100	100	400	33,000	-	3.300	3.300	3.300	3.300	13.200	
B.1.10	Conductivity Meter (Potable) (70% by project & 30% by farmers)	Nos.	50	200	200	200	200	850	3,500	0.175	0.700	0.700	0.700	0.700	2.975	
B.1.11	Tree Pruners (70% by project & 30% by farmers)	Nos.	50	200	200	200	200	850	6,000	0.300	1.200	1.200	1.200	1.200	5.100	
B.1.12	Pollinators (gum) (70% by project & 30% by farmers)	Nos.	50	200	200	200	200	850	2,000	0.100	0.400	0.400	0.400	0.400	1.700	
B.1.13	Harvesting tools (belt, cutting equipment, pulley, rope etc.) (70% by project & 30% by farmers)	Package	150	300	350	350	350	1,500	20,000	3.000	6.000	7.000	7.000	7.000	30.000	
B.1.14	Estab. Of Tissue Culture Laboratory (70% by project & 30% by farmers) or import plant lets from abroad	Package	-	1	1	-	-	2	10,000,000	-	10.000	10.000	-	-	20.000	
	Sub-Total (Dates)									148.575	270.600	273.600	265.600	252.600	1210.975	
	Onion Crop															
B.1.15	Moisture testing meter (70% by project & 30% by farmers)	Nos.	50	400	400	400	400	1,650	20,000	1.000	8.000	8.000	8.000	8.000	33.000	
B.1.16	Conductivity Meter (Potable) (70% by project & 30% by farmers)	Nos.	50	400	400	400	400	1,650	3,500	0.175	1.400	1.400	1.400	1.400	5.775	
B.1.17	Diggers (70% by project & 30% by farmers)	Nos.	-	2	2	2	2	8	250,000	-	0.500	0.500	0.500	0.500	2.000	
B.1.18	Curing and Storage facility (70% by project & 30% by farmers)	Nos.	-	2	2	2	2	8	1,000,000	-	2.000	2.000	2.000	2.000	8.000	
B.1.19	Mechanical Dryers (70% by project & 30% by farmers)	Nos.	-	1	1	1	1	4	3,000,000	-	3.000	3.000	3.000	3.000	12.000	
B.1.20	Lead trainers for Onion farmers	Person year	-	5	5	5	5	20	600,000	-	3.000	3.000	3.000	3.000	12.000	
B.1.21	Graders (70% by project & 30% by farmers)	Nos.	-	4	4	4	4	16	500,000	-	2.000	2.000	2.000	2.000	8.000	
B.1.22	Plastic Tray	Nos.	-	25,000	25,000	25,000	25,000	100,000	600	-	15.000	15.000	15.000	15.000	60.000	
	Sub-Total (Onion)									1.175	34.900	34.900	34.900	34.900	140.775	
	Chilies Crop															
B.1.23	Drying Mats(70% by project & 30% by farmers)	Package	1,000	8,000	8,000	9,000	9,000	35,000	18,000	18.000	144.000	144.000	162.000	162.000	630.000	
B.1.24	Cover sheet (70% by project & 30% by farmers)	Package	1,000	8,000	8,000	9,000	9,000	35,000	24,000	24.000	192.000	192.000	216.000	216.000	840.000	
B.1.25	Conductivity Meter (Potable) (70% by project & 30% by farmers)	Nos.	150	300	300	375	375	1,500	3,500	0.525	1.050	1.050	1.313	1.313	5.250	
B.1.26	Moisture testing meter (70% by project & 30% by farmers)	Nos.		375	375	375	375	1,500	10,000	-	3.750	3.750	3.750	3.750	15.000	
B.1.27	Mechanical Dryers (Capacity 5 ton/day) 70% by project & 30% by farmers	Nos.		1	1	1	1	4	3,500,000	-	3.500	3.500	3.500	3.500	14.000	
B.1.28	Water Storage Tanks (70% by project & 30% by farmers)	Nos.		30	30	40		100	2,000,000	-	60.000	60.000	80.000	-	200.000	
B.1.29	Dust Cleaner (70% by project, 30% by farmers)	Nos.		1	1	-	-	2	2,000,000	-	2.000	2.000	-	-	4.000	

B.1.30	Color soughter	Nos.	1	1				2	20,000,000	20,000	20,000	-	-	-	40,000
B.1.31	Lead Trainer for Chilies farmers	Person year	-	5	5	5	5	20	600,000	-	3,000	3,000	3,000	3,000	12,000
B.1.32	Plastic Tray	Nos.	-	25,000	25,000	25,000	25,000	100,000	500	-	12,500	12,500	12,500	12,500	50,000
	Sub-Total (Chilies)									62.525	441.800	421.800	482.063	402.063	1,810.250
	Sub Total (B-1)									212.275	747.300	730.300	782.563	689.563	3,162.000
B.2	Chilies Research Laboratory at Kunri														
B.2.1	Goods														
a	Elisa Kit	Nos.	0	5	5	5	5	20	100,000	-	0.500	0.500	0.500	0.500	2,000
b	Chemical & Glassware	Lump sum							Lump sum	-	0.500	0.500	0.500	0.500	2,000
	Sub Total (B.2.1)									-	1.000	1.000	1.000	1.000	4.000
B.2.2	Incremental Staff (for Laboratory)														
a	Chemist (BPS-18)	Person month	12	12	12	12	12	60	50,000	0.600	0.600	0.600	0.600	0.600	3,000
b	Assistant Chemist (BPS-17)	Person month	12	12	12	12	12	60	45,000	0.540	0.540	0.540	0.540	0.540	2,700
c	Laboratory Assistant (2 Nos.) (BPS-11)	Person month	24	24	24	24	24	120	15,000	0.360	0.360	0.360	0.360	0.360	1,800
d	Laboratory Attendant (2 Nos.) (BPS-1)	Person month	24	24	24	24	24	120	7,000	0.168	0.168	0.168	0.168	0.168	0,840
	Provision for Annual Increment	Percentage							Percentage	-	0.117	0.125	0.126	0.126	0,493
	Sub Total (B.2.2)									1.668	1.785	1.793	1.794	1.794	8.833
	Sub Total (B.2)									1.668	2.785	2.793	2.794	2.794	12.833
B.3	Demand Driven investment Fund (for infrastructure and technology innovation)	Lump sum							Lump sum	-	100,000	100,000	100,000	100,000	400,000
	Sub Total (B.3)									-	100.000	100.000	100.000	100.000	400.000
B.4	Post harvest loss management (rice crop)														
B.4.1	Participatory technological development (PTD) rice	Cropping	-	-	500	500	500	1,500	33,000	-	-	16,500	16,500	16,500	49,500
B.4.2	Lead Trainers for rice post harvest losses management	Person year	-	5	5	5	5	20	600,000	-	3,000	3,000	3,000	3,000	12,000
B.4.3	Thresher (50% by project and 50% by farmers)	Nos.	-	250	250	250	250	1,000	400,000	-	100,000	100,000	100,000	100,000	400,000
B.4.4	Conductivity Meter (70% by project and 30% by farmers)	Nos.	-	500	500	500	500	2,000	14,000	-	7,000	7,000	7,000	7,000	28,000
B.4.5	Soil & Moisture testing kit (70% by project and 30% by farmers)	Nos.	-	500	500	500	500	2,000	10,000	-	5,000	5,000	5,000	5,000	20,000
B.4.6	Flat bed driers (50% by project and 50% by farmers)	Nos.	-	50	50	50	50	200	690,000	-	34,500	34,500	34,500	34,500	138,000
B.4.7	Zero Tillage	Nos.	-	50	50	50	50	200	90,000	-	4,500	4,500	4,500	4,500	18,000
B.4.8	Rotavator	Nos.	-	300	300	300	300	1,200	125,000	-	37,500	37,500	37,500	37,500	150,000
	Sub Total (B.4)									-	191.500	208.000	208.000	208.000	815.500
B.5	Mobile Call Center and Consultant Panel														
B.5.1	Consultant Panel for GAP Certification	Lump Sum							Lump Sum	-	5,000	5,000	5,000	5,000	20,000
B.5.2	ICT based extension service call center, mobile Call center - Outsourced on BOT Basis	Firm								50,000	30,000	30,000	20,000	20,000	150,000
	Sub Total (B.5)									50.000	35.000	35.000	25.000	25.000	170.000
	Total (I) Investment for Ag Growth														
	Base Costs (Component B-AGP)									263.943	1,076.585	1,076.093	1,118.356	1,025.356	4,560.333
	Third party Monitoring (0.5%)									1.320	5.383	5.380	5.592	5.127	22.802
	Physical Contingencies (1%)									2.639	10.766	10.761	11.184	10.254	45.603
	Total Cost (Agriculture)									267.902	1,092.734	1,092.234	1,135.131	1,040.736	4,628.738
	1. One hub consists of 3-4 clusters and 1 cluster includes 4-5 villages. Each cluster will have one milk collection center (MCC) with chiller														
	2. Calculations based on 1000 dry buffaloes / cows per year and a similar number of heifer calves, managed by small holders.														
	3. Calculations based on 100 fattening units (10-40 heads, 2 cycles/years), 5 nucleus farms for small ruminants and 100 calf rearing units (10-30 head, 2 cycles/year)														

	Pakistan															
	Sindh Agriculture Growth Program															
C	Project Management and Monitoring and Evaluation															
			Quantities								Rs. In Million					
Sr.	Description	Unit	Year-1	Year-2	Year-3	Year-4	Year-5	Total	Unit Costs Rs	Year-1	Year-2	Year-3	Year-4	Year-5	Total	
I	PMU Agriculture															
C.1	Incremental Staff															
C.1.1	Project Director PMU, SACGP (Agriculture)	Person month	12	12	12	12	12	60	250,000	3.000	3.000	3.000	3.000	3.000	15.000	
C.1.2	Financial Manager (Market Based)	Person month	12	12	12	12	12	60	140,000	1.680	1.680	1.680	1.680	1.680	8.400	
C.1.3	Accounts Officer (Market Based)	Person month	12	12	12	12	12	60	50,000	0.600	0.600	0.600	0.600	0.600	3.000	
C.1.4	Procurement Specialist (Market Based)	Person month	12	12	12	12	12	60	160,000	1.920	1.920	1.920	1.920	1.920	9.600	
C.1.5	Chief M&E Officer (Market Based)	Person month	12	12	12	12	12	60	150,000	1.800	1.800	1.800	1.800	1.800	9.000	
C.1.6	Data Base Operator / Computer Operators	Person month	24	24	24	24	24	120	50,000	1.200	1.200	1.200	1.200	1.200	6.000	
C.1.7	Social and Environment Safeguard Office (Market Based)	Person month	12	12	12	12	12	60	125,000	1.500	1.500	1.500	1.500	1.500	7.500	
C.1.8	Communications Officer	Person month	12	12	12	12	12	60	50,000	0.600	0.600	0.600	0.600	0.600	3.000	
C.1.9	Office Manager/ Secretary	Person month	12	12	12	12	12	60	50,000	0.600	0.600	0.600	0.600	0.600	3.000	
C.1.10	Receptionist / Secretary	Person month	12	12	12	12	12	60	15,000	0.180	0.180	0.180	0.180	0.180	0.900	
C.1.11	Driver	Person month	72	72	72	72	72	360	10,000	0.720	0.720	0.720	0.720	0.720	3.600	
C.1.12	Messenger / Guard 6 Nos.	Person month	72	72	72	72	72	360	7,000	0.504	0.504	0.504	0.504	0.504	2.520	
C.1.12	Contigent Staff	Person month	48	48	48	48	48	240	15,000	0.720	0.720	0.720	0.720	0.720	3.600	
C.1.13	Provision for Annual Increment									0.000	1.052	1.125	1.130	1.131	4.438	
	Sub-Total (C.1)									15.024	16.076	16.149	16.154	16.155	79.558	
C.2	Goods Office Equipment															
C.2.1	Laptop	No.	2	-	-	-	-	2	80,000	0.160	-	-	-	-	0.160	
C.2.2	Desktop Computer	No.	6	-	-	-	-	6	80,000	0.480	-	-	-	-	0.480	
C.2.3	Air Conditioners	No.	6	-	-	-	-	6	100,000	0.600	-	-	-	-	0.600	
C.2.4	Generator (10 KV)	No.	1	-	-	-	-	1	790,000	0.790	-	-	-	-	0.790	
C.2.5	Printers/Scanners/Photocopiers	No.	2	-	-	-	-	2	60,000	0.120	-	-	-	-	0.120	
C.2.6	Heavy Duty photocopier/ scanner/ printer	No.	1	-	-	-	-	1	433,000	0.433	-	-	-	-	0.433	
C.2.7	Telephone Exchange/ 10 phones	No.	1	-	-	-	-	1	50,000	0.050	-	-	-	-	0.050	
C.2.8	Mobile/Cell Phones	No.	5	-	-	-	-	5	5,000	0.025	-	-	-	-	0.025	
C.2.9	UPS	No.	6	-	-	-	-	6	20,000	0.120	-	-	-	-	0.120	
C.2.10	Networking setup		1	-	-	-	-	1	500,000	0.500	-	-	-	-	0.500	
	Sub-Total (Office Equipment)									3.278	-	-	-	-	3.278	
	Furniture & Fixture															
C.2.11	Office Desks / Chairs	Package	50	-	-	-	-	50	40,000	2.000	-	-	-	-	2.000	
C.2.12	Conference Table/ Chairs	No.	1	-	-	-	-	1	800,000	0.800	-	-	-	-	0.800	
C.2.13	Filling Cabinet	No.	8	-	-	-	-	8	50,000	0.400	-	-	-	-	0.400	
	Sub-Total (Furniture & Fixture)									3.200	-	-	-	-	3.200	
	Vehicles															
C.2.14	Operational Vehicle (On/Off Road) up 3000 CC (Incl. Registration)	No.	2	-	-	-	-	2	4,000,000	8.000	-	-	-	-	8.000	
C.2.15	Field Vehicle for Monitoring up 1600 CC (including Registration)	Nos.	1	-	-	-	-	1	2,500,000	2.500	-	-	-	-	2.500	
C.2.16	Car 1000 CC (Including Registration)	Nos.	3	-	-	-	-	3	1,200,000	3.600	-	-	-	-	3.600	
C.2.17	Motorcycles 70 cc		4	-	-	-	-	4	70,000	0.280	-	-	-	-	0.280	
	Sub-Total (Vehicle)									14.380	-	-	-	-	14.380	
	Total (C.2)									20.858	-	-	-	-	20.858	
C.3	Operating Costs															
C.3.1	Office building rental	Months	12	12	12	12	12	60	500,000	6.000	6.000	6.000	6.000	6.000	30.000	
C.3.2	Telephone and utilities	Months	12	12	12	12	12	60	25,000	0.300	0.300	0.300	0.300	0.300	1.500	
C.3.3	Office supplies	Months	12	12	12	12	12	60	20,000	0.240	0.240	0.240	0.240	0.240	1.200	
C.3.4	Advertisement & Publicity	Lump Sum							Lump Sum	1.700	1.200	1.200	1.000	-	5.100	
C.3.5	Vehicles operating & maintenance	V.months	60	60	60	60	60	300	75,000	4.500	4.500	4.500	4.500	4.500	22.500	

C.3.6	Office equipment maintenance	Lump Sum								Lump Sum	0.200	0.300	0.500	0.500	0.500	2.000
C.3.7	Daily allowance (Perdiem)	Lump Sum								Lump Sum	1.200	1.300	1.415	1.415	1.416	6.746
C.3.8	Internal audit (outsourced)	Lump Sum								Lump Sum	2.400	2.400	2.400	2.400	2.400	12.000
	Sub-Total (C.3)										16.540	16.240	16.555	16.355	15.356	81.046
C.3a.	PIFRA Connectivity Costs															
a.	License Procurement Charges	Lump sum								Lump sum	1.400	-	-	-	-	1.400
b.	License Maintenance Charges	Lump sum								Lump sum	0.308	0.308	0.308	0.308	0.308	1.540
c.	Connectivity Charges	Lump sum								Lump sum	0.120	0.120	0.120	0.120	0.120	0.600
d.	Hardware	Lump sum								Lump sum	0.600	-	-	-	-	0.600
	Sub-Total (C.3a)										2.428	0.428	0.428	0.428	0.428	4.140
	Total of PMU (Agriculture)										54.850	32.744	33.132	32.937	31.939	185.602
C.4	PIUs Agriculture at District levels (4 Nos)															
C.4.1	Project Allowance for Seconded Staff of 4-PIUs															
C.4.2	Director Agriculture Extension	Person month	48	48	48	48	48	240	60,000		2.880	2.880	2.880	2.880	2.880	14.400
C.4.3	Deputy Director (BPS 18)	Person month	48	48	48	48	48	240	50,000		2.400	2.400	2.400	2.400	2.400	12.000
C.4.4	IPM Manager (BPS-18)	Person month	48	48	48	48	48	240	50,000		2.400	2.400	2.400	2.400	2.400	12.000
C.4.5	Assistant Director Agriculture/Marketing	Person month	48	48	48	48	48	240	50,000		2.400	2.400	2.400	2.400	2.400	12.000
C.4.6	Account Officer/Assistant Accounts Officer	Person month	48	48	48	48	48	240	50,000		2.400	2.400	2.400	2.400	2.400	12.000
C.4.7	Accountants/Accounts Clerk	Person month	48	48	48	48	48	240	15,000		0.720	0.720	0.720	0.720	0.720	3.600
C.4.8	Computer Operator	Person month	48	48	48	48	48	240	15,000		0.720	0.720	0.720	0.720	0.720	3.600
C.4.9	Driver	Person month	48	48	48	48	48	240	8,000		0.384	0.384	0.384	0.384	0.384	1.920
C.4.10	Messenger 2 Nos. / PIU	Person month	96	96	96	96	96	480	5,000		0.480	0.480	0.480	0.480	0.480	2.400
C.4.11	Office Cleaners / Sweepers 2 Nos. / PIUs	Person month	96	96	96	96	96	480	5,000		0.480	0.480	0.480	0.480	0.480	2.400
C.4.12	Chowkidar/ Guards 3 Nos. / PIUs	Person month	144	144	144	144	144	720	5,000		0.720	0.720	0.720	0.720	0.720	3.600
	Sub Total (Seconded Staff)										15.984	15.984	15.984	15.984	15.984	79.920
	Special Incentive Allowance 1/															
C.4.13	Director General Agriculture Extension	Person month	12	12	12	12	12	60	80,000		0.960	0.960	0.960	0.960	0.960	4.800
C.4.14	Director General Agriculture Research	Person month	12	12	12	12	12	60	80,000		0.960	0.960	0.960	0.960	0.960	4.800
C.4.15	Director Information	Person month	12	12	12	12	12	60	60,000		0.720	0.720	0.720	0.720	0.720	3.600
C.4.16	Project Supporting Staff at Secretariat Level (3-4 Persons)	Person month	12	12	12	12	12	60	150,000		1.800	1.800	1.800	1.800	1.800	9.000
	Sub Total										4.440	4.440	4.440	4.440	4.440	22.200
C.5	Goods															
	Office Equipment (4-PIUs-Agriculture)															
C.5.1	Computers (Laptop)	Nos.	4	-	-	-	-	4	80,000		0.320	-	-	-	-	0.320
C.5.2	Computer Desktop	Nos.	8	-	-	-	-	8	80,000		0.640	-	-	-	-	0.640
C.5.3	Laser Printer	Nos.	8	-	-	-	-	8	40,000		0.320	-	-	-	-	0.320
C.5.4	UPS	Nos.	4	-	-	-	-	4	20,000		0.080	-	-	-	-	0.080
C.5.5	Scanner	Nos.	4	-	-	-	-	4	20,000		0.080	-	-	-	-	0.080
C.5.6	Software /Wi-Fi etc.	Package	4	-	-	-	-	4	50,000		0.200	-	-	-	-	0.200
C.5.7	Photocopier	Nos.	4	-	-	-	-	4	300,000		1.200	-	-	-	-	1.200
C.5.8	Facsimile	Nos.	4	-	-	-	-	4	30,000		0.120	-	-	-	-	0.120
C.5.9	Furniture & Fixture	Package	4	-	-	-	-	4	500,000		2.000	-	-	-	-	2.000
	Sub Total (Equipment/ PIUS)										4.960	-	-	-	-	4.960

	Vehicles for 4 PIUs (Agriculture)															
C.5.10	Field Operational Vehicle (On/Off Road)	Nos.	4	-	-	-	-	4	2,500,000	10,000	-	-	-	-	-	10,000
	Sub Total (Vehicles)									10,000	-	-	-	-	-	10,000
	Sub Total (C.5)									14,960	-	-	-	-	-	14,960
C.6	Other Operating Costs (4 PIUs-Agriculture)															
C.6.1	Telephone & utilities	months	48	48	48	48	48	240	30,000	1,440	1,440	1,440	1,440	1,440	1,440	7,200
C.6.2	Office supplies	months	48	48	48	48	48	240	50,000	2,400	2,400	2,400	2,400	2,400	2,400	12,000
C.6.3	vehicles operating & maintenance	v. months	48	48	48	48	48	240	75,000	3,600	3,600	3,600	3,600	3,600	3,600	18,000
C.6.4	Equipment maintenance	PIUs Years	4	4	4	4	4	20	200,000	0,800	0,800	0,800	0,800	0,800	0,800	4,000
C.6.5	TA/DA for field staff	Lump Sum							Lump Sum	10,000	10,000	10,000	10,000	10,000	10,000	50,000
	Sub Total (C.6)									18,240	18,240	18,240	18,240	18,240	18,240	91,200
	Sub Total (PIUs)									53,624	38,664	38,664	38,664	38,664	38,664	208,280
	Total (Agriculture PMU+PIUs)									108,474	71,408	71,796	71,601	70,603	393,882	
II	Project Coordination Unit															
C.7	Incremental Staff															
C.7.1	Project Coordinator	Person month	12	12	12	12	12	60	250,000	3,000	3,000	3,000	3,000	3,000	3,000	15,000
C.7.2	M&E Specialist (Market based)	Person month	12	12	12	12	12	60	150,000	1,800	1,800	1,800	1,800	1,800	1,800	9,000
C.7.3	Admin & Finance Officer	Person month	12	12	12	12	12	60	90,000	1,080	1,080	1,080	1,080	1,080	1,080	5,400
C.7.4	Office Secretary (BPS-11)	Person month	12	12	12	12	12	60	15,000	0,180	0,180	0,180	0,180	0,180	0,180	0,900
C.7.5	Computer Operator (BPS-11)	Person month	12	12	12	12	12	60	15,000	0,180	0,180	0,180	0,180	0,180	0,180	0,900
C.7.6	Driver (BPS-5)	Person month	24	24	24	24	24	120	10,000	0,240	0,240	0,240	0,240	0,240	0,240	1,200
C.7.7	Messenger / Office Boy 2 Nos. (BPS-1)	Person month	12	12	12	12	12	60	7,000	0,084	0,084	0,084	0,084	0,084	0,084	0,420
C.7.8	Office Boy/Office cleaner 2 No (BS-1)	Person month	12	12	12	12	12	60	7,000	0,084	0,084	0,084	0,084	0,084	0,084	0,420
C.7.9	Guard 2 Nos. (BPS-1)	Person month	12	12	12	12	12	60	7,000	0,084	0,084	0,084	0,084	0,084	0,084	0,420
C.7.10	M&E Consultants	Firm Year	1	1	1	1	1	5	8,000,000	8,000	8,000	8,000	8,000	8,000	8,000	40,000
C.7.11	MIS (Consultancy)	Firm Year	1	1	1	1	1	5	5,000,000	5,000	5,000	5,000	5,000	5,000	5,000	25,000
C.7.12	Preparation of progress reports	Nos.	4	4	4	4	4	20	125,000	0,500	0,500	0,500	0,500	0,500	0,500	2,500
C.7.13	Preparation of completion reports	Nos.	-	-	-	-	1	1	2,000,000	-	-	-	-	-	2,000	2,000
C.7.14	Messenger / Office Boy 2 Nos. (BPS-1)	Person month	24	24	24	24	24	120	7,000	0,168	0,168	0,168	0,168	0,168	0,168	0,840
C.7.15	Cleaner / Sweeper (BPS-1)	Person month	12	12	12	12	12	60	7,000	0,084	0,084	0,084	0,084	0,084	0,084	0,420
C.7.16	Guard / Chowidars 2 Nos. (BPS-1)	Person month	24	24	24	24	24	120	7,000	0,168	0,168	0,168	0,168	0,168	0,168	0,840
C.7.17	Provision for Annual Increment									-	1,446	1,547	1,554	1,694	1,694	6,241
	Sub Total (C.7)									20,652	22,098	22,199	22,206	24,346	24,346	111,501
C.8	Implementation of Environment Social Management Plan	Consultant	1	-	-	-	-	1	30,000,000	30,000	-	-	-	-	-	30,000
	Sub Total (C.8)									30,000	-	-	-	-	-	30,000
C.9	Goods															
	Equipment (Coordination Office)															
C.9.1	Laptops	No.	2	-	-	-	-	2	80,000	0,160	-	-	-	-	-	0,160
C.9.2	Desktop Computers	No.	4	-	-	-	-	4	80,000	0,320	-	-	-	-	-	0,320
C.9.3	Printers/ Scanners/ Photocopiers	No.	2	-	-	-	-	2	60,000	0,120	-	-	-	-	-	0,120
C.9.4	Heavy Duty Photocopier/ scanner/printer	No.	1	-	-	-	-	1	435,000	0,435	-	-	-	-	-	0,435
	Sub Total (Equipment)									1,035	-	-	-	-	-	1,035
	Furniture & Fixture															
C.9.5	Air Conditioners	No.	4	-	-	-	-	4	100,000	0,400	-	-	-	-	-	0,400
C.9.6	Office Desks / Chairs	Package	20	-	-	-	-	20	30,000	0,600	-	-	-	-	-	0,600
C.9.7	Conference Table/ Chairs	No.	1	-	-	-	-	1	800,000	0,800	-	-	-	-	-	0,800
C.9.8	Filling Cabinet	No.	4	-	-	-	-	4	40,000	0,160	-	-	-	-	-	0,160
	Sub Total (Furniture & Fixture)									1,960	-	-	-	-	-	1,960

	Vehicle for PCU (Agriculture)															
C.9.9	Operational Vehicle (On/Off Road) up 3000 CC (Incl. Registration)	Nos.	1	-	-	-	-	1	4,000,000	4.000	-	-	-	-	-	4.000
C.9.10	Field Vehicle for Monitoring up 1600 CC (including Registration)	Nos.	1	-	-	-	-	1	2,500,000	2.500	-	-	-	-	-	2.500
	Sub Total (Vehicles)									6.500	-	-	-	-	-	6.500
	Total (C.9)									9.495	-	-	-	-	-	9.495
	C.10 Operating Costs															
C.10.1	Office building rental	months	12	12	12	12	12	60	150,000	1.800	1.800	1.800	1.800	1.800	1.800	9.000
C.10.2	Telephone & utilities	months	12	12	12	12	12	60	25,000	0.300	0.300	0.300	0.300	0.300	0.300	1.500
C.10.3	Office supplies (Papers, Books, Journals, Printing, Publication, Electricity, water charges, publicity advertisement, fair & exhibition and other misc)	months	12	12	12	12	12	60	150,000	1.800	1.800	1.800	1.800	1.800	1.800	9.000
C.10.4	Vehicles operating & maintenance	v. months	24	24	24	24	24	120	75,000	1.800	1.800	1.800	1.800	1.800	1.800	9.000
C.10.5	IT equipment maintenance	Lump Sum							Lump Sum	0.060	0.060	0.060	0.060	0.060	0.060	0.300
C.10.6	Daily allowance (Per diem)	Lump Sum							Lump Sum	1.500	1.650	1.960	1.960	1.960	1.960	9.030
	Sub Total (Other operating Costs)									7.260	7.410	7.720	7.720	7.720	7.720	37.830
	C.11 Others															
C.11.1	Social assessment (overall project)	Consultancy	1	-	-	-	-	1	20,000,000	20.000	-	-	-	-	-	20.000
C.11.2	Impact Evaluation	Individual								-	-	-	-	-	30.000	30.000
	Total (C.11)									20.000	-	-	-	-	30.000	50.000
	Total (Project Coordination Office)									87.407	29.508	29.919	29.926	62.066	238.826	
	Total (PMU & PIU Agriculture + Coordination Office)									195.881	100.915	101.715	101.527	132.669	632.708	
	Third party monitoring (0.5%)									0.979	0.505	0.509	0.508	0.663	3.164	
	Physical Contingencies (1%)									1.959	1.009	1.017	1.015	1.327	6.327	
	Total Cost (Agriculture)									198.819	102.429	103.241	103.050	134.659	642.199	

1/ Special Incentive allowance is provided in recognition of their dedications to extra duties in the field. No Daily allowance will be given to this staff in lieu of their travelling.

2/ Project Director PMU and Project Coordinator - For the period of dual charge shall be paid project allowance from the salary kept / indicated against these posts at C-1.1 and C-7.1 in the cost table. This formula shall apply to all posts at PMU and PCU level till the appointment / procurement of the staff.

**Cost Estimates: Sindh Agriculture Growth Project
(Livestock Component)**

Pakistan
Sindh Agricultural Growth Project (Livestock Component)
Project Cost Summary - Component wise

Sr	Component	Base Costs and Contingencies					Total
		Year-1	Year-2	Year-3	Year-4	Year-5	
A	Capacity Building and Institutional Development	213.324	262.603	173.791	160.581	54.574	864.875
B	Dairy Value Chain	259.103	203.080	351.681	355.328	199.727	1,368.920
C	Project Management and Monitoring and Evaluation	73.372	59.180	58.715	65.739	63.060	320.066
	Total Base costs	545.800	524.864	584.187	581.648	317.362	2,553.861
	Third Part Monitoring (0.5%)	2.729	2.624	2.921	2.908	1.587	12.769
	Physical Contingencies (1%)	5.458	5.249	5.842	5.816	3.174	25.539
	Price contingency (on civil works)	-	5.048	13.466	17.478	2.524	38.516
	Total Project Costs	553.987	537.786	606.416	607.851	324.646	2,630.685

Pakistan
Sindh Agricultural Growth Project (Livestock Component)
Project Cost Summary - Component wise

Sr	Component	Costs Including Contingencies					Total
		Year-1	Year-2	Year-3	Year-4	Year-5	
A	Capacity Building and Institutional Development	216.524	270.643	184.600	175.607	57.916	905.291
B	Dairy Value Chain	262.990	207.074	362.221	365.518	202.723	1,400.527
C	Project Management and Monitoring and Evaluation	74.473	60.068	59.596	66.725	64.006	324.867
	Total Project Costs	553.987	537.786	606.416	607.851	324.646	2,630.685

Pakistan
Sindh Agricultural Growth Project (Livestock Component)
Financing Plan

Description	Costs Including Contingencies					Total
	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	
Community Share	18.975	6.210	17.250	10.350	-	52.785
IDA Contribution	535.012	531.576	589.166	597.501	324.646	2,577.900
Total	553.987	537.786	606.416	607.851	324.646	2,630.685

Summary of Financial Contribution

IDA Share	2,577.900
Farmer Share	52.785
Total	2,630.685

Annexure-IV

Pakistan
Sindh Agricultural Growth Project (Livestock Component)
A Capacity Building and Institutional Development

Sr.	Description	Unit	Quantities						Total	Unit Costs Rs	Base Costs (Rs Million)					
			Year-1	Year-2	Year-3	Year-4	Year-5	Year-1			Year-2	Year-3	Year-4	Year-5	Total	
A (1) Capacity Building																
A.1 Technical Assistance																
A.1.1	Designing and delivering effective capacity building	Lump sum							Lump sum	14.000	10.000	-	6.310	-	30.310	
Sub Total (TA)										14.000	10.000	-	6.310	-	30.310	
A.2 Institutional twinning of the staff of Livestock Department with ILRI and other institutions																
A.2.1	Training/Study Tours/Exposure Visits (international)	Lump sum							Lump sum	-	25.000	25.000	20.000	-	70.000	
A.2.2	Training/Study Tours/Exposure Visits (national)	Lump sum							Lump sum	-	10.000	10.000	10.000	-	30.000	
Sub Total (Staff Training)										-	35.000	35.000	30.000	-	100.000	
A.3 Training of Farmers																
A.3.1	Curriculum Development	Lump sum							Lump sum	0.600	0.600	0.600	-	-	1.800	
A.3.2	Training of Lead Trainers	Persons	4	4	4	4	4	20.0	30,000	0.120	0.120	0.120	0.120	0.120	0.600	
A.3.3	Refresher Course of Lead Trainers	Persons	-	4	-	4	-	8.0	20,000	-	0.080	-	0.080	-	0.160	
A.3.4	Resource Persons/Subject Specialist (Trainer of Lead Persons)	Persons	3	-	-	-	-	3.0	300,000	0.900	-	-	-	-	0.900	
A.3.5	*Seminars/Farmer Days/hands on Training/Workshops/Dissemination of Information/Demonstrations/Training of AI/Training of Livestock Extension/Management/New Technologies (Details at Annexure-XIV)	Lump sum							Lump sum	14.753	30.265	31.225	31.225	23.013	130.480	
Sub Total (Farmer's Training)										16.373	31.065	31.945	31.425	23.133	133.940	
Grand Total of Capacity Building										30.373	76.065	66.945	67.735	23.133	264.250	
A (2) Institutional Development																
A.4 Technical Assistance																
A.4.1	a) Design & implementation of investments	Firm							Lump sum	3.600	3.600	3.600	3.600	-	14.400	
A.4.2	b) TA for Flood Affected Structures and other works	Person Months	12	12	12	12	-	48.0	200,000	2.400	2.400	2.400	2.400	-	9.600	
A.4.3	c) General strategic planning and management	Lump sum							Lump sum	12.000	-	14.000	-	-	26.000	
Sub Total (Technical Assistance)										18.000	6.000	20.000	6.000	-	50.000	
A.5 Establishment of AI Training Centre																
A.5.1 Civil Work																
A.5.1.1	Training Hall for 30 trainees per batch (16x20)	Sq. ft	320	-	-	-	-	320.0	305	0.098	-	-	-	-	0.098	
A.5.1.2	Office Room for Incharge 12x14	Sq. ft	168	-	-	-	-	168.0	305	0.051	-	-	-	-	0.051	
A.5.1.3	Office Room for Training Coordinator 12x14	Sq. ft	168	-	-	-	-	168.0	3,000	0.504	-	-	-	-	0.504	
A.5.1.4	Library room 20x30	Sq. ft	600	-	-	-	-	600.0	3,000	1.800	-	-	-	-	1.800	
A.5.1.5	Semen analysis lab 12x14	Sq. ft	168	-	-	-	-	168.0	3,000	0.504	-	-	-	-	0.504	
A.5.1.6	Dinning hall 20x30	Sq. ft	600	-	-	-	-	600.0	3,000	1.800	-	-	-	-	1.800	
A.5.1.7	Kitchen 14x16	Sq. ft	224	-	-	-	-	224.0	3,000	0.672	-	-	-	-	0.672	
A.5.1.8	Guard room 10x12	Sq. ft	120	-	-	-	-	120.0	3,000	0.360	-	-	-	-	0.360	
A.5.1.9	Shed for 10 experiment animals 100x20 (2 Nos)	Sq. ft	4,000	-	-	-	-	4,000.0	17,790	71.160	-	-	-	-	71.160	
A.5.1.10	Ware house of roughage 15x20	Sq. ft	300	-	-	-	-	300.0	3,000	0.900	-	-	-	-	0.900	
A.5.1.11	Ware house of concentrate 15x20	Sq. ft	300	-	-	-	-	300.0	3,000	0.900	-	-	-	-	0.900	
A.5.1.12	Cattle crush covered 10x12	Sq. ft	480	-	-	-	-	480.0	900	0.432	-	-	-	-	0.432	
A.5.1.13	Garage 20x20	Sq. ft	400	-	-	-	-	400.0	3,000	1.200	-	-	-	-	1.200	
A.5.1.14	Lavatory - 6 wash room with exhaust fan 16x20	Sq. ft	320	-	-	-	-	320.0	3,500	1.120	-	-	-	-	1.120	
A.5.1.15	Wash Basin for reproductive organs	Nos	2	-	-	-	-	2.0	10,100	0.020	-	-	-	-	0.020	
A.5.1.16	Boundary with security fencing with steel gate (2450rft)	rft	2,450	-	-	-	-	2,450.0	3,600	8.820	-	-	-	-	8.820	
A.5.1.17	Electricity Gas Installation (internal & external)/demand notice	Lump Sump	-	-	-	-	-	-	Lump Sump	2.400	-	-	-	-	2.400	
A.5.1.18	Phentum Hall (16x20) for trainees 30 per Batch	Sq. ft	320	-	-	-	-	320.0	3,000	0.960	-	-	-	-	0.960	
A.5.1.19	Computer Room (14x16)	Sq. ft	224	-	-	-	-	224.0	3,500	0.784	-	-	-	-	0.784	
A.5.1.20	Rooms for Residence of Trainees (12x14 each)	Sq. ft	3,360	-	-	-	-	3,360.0	3,500	11.760	-	-	-	-	11.760	
Sub Total										106.245	-	-	-	-	106.245	

A.5.2	Goods														
A.5.2.1	IT equipment														
a	Multimedia Projector, Screen and Accessories	No.	-	2	-	-	-	2.0	255,000	-	0.510	-	-	-	0.510
b	Multimedia with sound system	No.	-	2	-	-	-	2.0	30,500	-	0.061	-	-	-	0.061
c	Desktop computer HP core i4	No.	-	1	-	-	-	1.0	70,000	-	0.070	-	-	-	0.070
d	Laptop Core i7	No.	-	2	-	-	-	2.0	125,000	-	0.250	-	-	-	0.250
e	Printers laser jet	No.	-	2	-	-	-	2.0	45,000	-	0.090	-	-	-	0.090
f	Networking switch 24 ports	No.	-	4	-	-	-	4.0	6,500	-	0.026	-	-	-	0.026
g	LCD Monitor 56"	No.	-	1	-	-	-	1.0	72,500	-	0.073	-	-	-	0.073
	Sub Total										1.080				1.080
A.5.2.2	AI Equipment														
a	Semen analyzer IVOS	No	-	1	-	-	-	1.0	5,082,800	-	5.083	-	-	-	5.083
b	Agro Scan ultrasound	No	-	1	-	-	-	1.0	1,016,600	-	1.017	-	-	-	1.017
c	A.I kit box (along with AI cylinder 2 liter)	No	-	200	200	200	200	800.0	30,000	-	6.000	6.000	6.000	6.000	24.000
d	Electronic Microscope	No	-	1	-	-	-	1.0	406,700	-	0.407	-	-	-	0.407
e	LNG cylinder 11 Liter	No	-	5	-	-	-	5.0	152,500	-	0.763	-	-	-	0.763
f	LNG cylinder 2 Liter	No	-	10	-	-	-	10.0	81,500	-	0.815	-	-	-	0.815
g	Artificial Vagina	No	-	10	-	-	-	10.0	20,500	-	0.205	-	-	-	0.205
	Sub Total										14.289	6.000	6.000	6.000	32.289
A.5.2.3	Electric Appliances														
a	Split AC 1.5 ton	No	-	5	-	-	-	5.0	60,000	-	0.300	-	-	-	0.300
b	Generator 10 KV	No	-	1	-	-	-	1.0	1,500,000	-	1.500	-	-	-	1.500
c	Deep freezer 15 CFt	No	-	1	-	-	-	1.0	60,000	-	0.060	-	-	-	0.060
d	Deep freezer 16 CFt Double Door	No	-	1	-	-	-	1.0	50,000	-	0.050	-	-	-	0.050
e	Refrigerator full size	No	-	1	-	-	-	1.0	45,000	-	0.045	-	-	-	0.045
f	Water Dispenser	No	-	4	-	-	-	4.0	15,000	-	0.060	-	-	-	0.060
g	Bracket fan	No	-	28	-	-	-	28.0	4,000	-	0.112	-	-	-	0.112
h	Ceiling fans	No	-	24	-	-	-	24.0	3,000	-	0.072	-	-	-	0.072
i	Exhaust fan	No	-	2	-	-	-	2.0	3,500	-	0.007	-	-	-	0.007
j	Photostat Machine	No	-	1	-	-	-	1.0	200,000	-	0.200	-	-	-	0.200
k	Fax Machine	No	-	1	-	-	-	1.0	25,000	-	0.025	-	-	-	0.025
	Sub Total										2.431				2.431
A.5.2.4	Furniture														
a	Chairs with tables	No	-	25	-	-	-	25.0	10,000	-	0.250	-	-	-	0.250
b	Table	No	-	7	-	-	-	7.0	20,000	-	0.140	-	-	-	0.140
c	Office Chair	No	-	16	-	-	-	16.0	2,000	-	0.032	-	-	-	0.032
d	Revolving chair	No	-	2	-	-	-	2.0	10,000	-	0.020	-	-	-	0.020
e	Tables for library	No	-	30	-	-	-	30.0	4,500	-	0.135	-	-	-	0.135
f	Chairs for library	No	-	30	-	-	-	30.0	6,000	-	0.180	-	-	-	0.180
g	Book shelf	No	-	2	-	-	-	2.0	20,500	-	0.041	-	-	-	0.041
h	Book shelf (fixture)	Lump Sum	-		-	-	-		Lump Sum	-	0.400	-	-	-	0.400
i	File rake	No	-	2	-	-	-	2.0	15,000	-	0.030	-	-	-	0.030
j	Computer trolley	No	-	2	-	-	-	2.0	10,000	-	0.020	-	-	-	0.020
k	cabinet with fixtures	No	-	8	-	-	-	8.0	30,000	-	0.240	-	-	-	0.240
l	Computer Chairs	No	-	8	-	-	-	8.0	3,500	-	0.028	-	-	-	0.028
m	Cupboard	No	-	30	-	-	-	30.0	10,000	-	0.300	-	-	-	0.300
n	Book rake	No	-	30	-	-	-	30.0	5,000	-	0.150	-	-	-	0.150
o	Standing board (4x6')	No	-	3	-	-	-	3.0	6,000	-	0.018	-	-	-	0.018
p	Stage dice	No	-	1	-	-	-	1.0	15,000	-	0.015	-	-	-	0.015
q	Lab Stool (Stainless steel)	No	-	25	-	-	-	25.0	5,000	-	0.125	-	-	-	0.125
r	Organ demonstration table stainless steel	No	-	4	-	-	-	4.0	10,000	-	0.040	-	-	-	0.040
s	Almirah for changing room	No	-	2	-	-	-	2.0	15,000	-	0.030	-	-	-	0.030
t	Kitchen cabins Fixture	No	-	1	-	-	-	1.0	200,000	-	0.200	-	-	-	0.200
u	Single Bed	No	-	30	-	-	-	30.0	5,000	-	0.150	-	-	-	0.150
v	Bed Sheets & Cushions	No	-	60	-	-	-	60.0	6,000	-	0.360	-	-	-	0.360
w	Crockery for mess	Sets	-	4	-	-	-	4.0	20,000	-	0.080	-	-	-	0.080
x	Tables for dining Hall	No	-	6	-	-	-	6.0	130,000	-	0.780	-	-	-	0.780
y	Chairs for dining Hall	No	-	30	-	-	-	30.0	130,000	-	3.900	-	-	-	3.900
	Sub Total										7.664				7.664

A.5.2.5 Library Generals & Books																	
a	Subscription of International Journals of Andrology and Reproduction. Purchase of text books on Animal Reproduction, Breeding, Genetics and Management.	Lump Sum	-	-	-	-	-	-	Lump Sum	-	-	1.139	1.139	1.139	1.139	3.416	
	Sub Total									-	-	1.139	1.139	1.139	1.139	3.416	
A.5.2.6 Vehicles																	
a	Staff Vehicle upto 1300 cc	No	-	1	-	-	-	1.0	2,000,000	-	2,000	-	-	-	-	2,000	
	Sub Total									-	2,000	-	-	-	-	2,000	
A.5.2.7 Incremental Operating Costs																	
	Project Allowance to Seconded Staff																
a	Deputy Director (incharge)	Persons Month	12	12	12	12	12	60.0	50,000	0.600	0.600	0.600	0.600	0.600	0.600	3.000	
b	Training Facilitators (Male)	Persons Month	-	12	12	12	12	48.0	50,000	-	0.600	0.600	0.600	0.600	0.600	2.400	
	Sub Total									0.600	1.200	1.200	1.200	1.200	1.200	5.400	
	Incremental Staff																
c	Resource Persons (3-days per Session including travel and per-diem)	Sessions	110	110	110	110	110	550.0	30,000	3.300	3.300	3.300	3.300	3.300	3.300	16.500	
d	Training Facilitator (female) (B-17)	Person Months	-	12	12	12	12	48.0	50,000	-	0.600	0.600	0.600	0.600	0.600	2.400	
e	Hostel Warden (B-17)	Person Months	-	12	12	12	12	48.0	50,000	-	0.600	0.600	0.600	0.600	0.600	2.400	
f	IT Technician (B-12)	Person Months	-	12	12	12	12	48.0	15,000	-	0.180	0.180	0.180	0.180	0.180	0.720	
g	AI Technician (2 Nos) (B-12)	Person Months	-	24	24	24	24	96.0	15,000	-	0.360	0.360	0.360	0.360	0.360	1.440	
h	Senior Clerk (B-12)	Person Months	-	12	12	12	12	48.0	15,000	-	0.180	0.180	0.180	0.180	0.180	0.720	
i	Cook (B-7)	Person Months	-	12	12	12	12	48.0	12,000	-	0.144	0.144	0.144	0.144	0.144	0.576	
j	Driver (1 Nos) (B-5)	Person Months	-	12	12	12	12	48.0	10,000	-	0.120	0.120	0.120	0.120	0.120	0.480	
k	Office Boy (1 Nos) (B-1)	Person Months	-	12	12	12	12	48.0	9,000	-	0.108	0.108	0.108	0.108	0.108	0.432	
l	Cook helper (2 Nos)(B-1)	Person Months	-	24	24	24	24	96.0	9,000	-	0.216	0.216	0.216	0.216	0.216	0.864	
m	Animal Attendant (2 Nos) (B-1)	Person Months	-	24	24	24	24	96.0	9,000	-	0.216	0.216	0.216	0.216	0.216	0.864	
n	Shed Cleaner (2 Nos) (B-1)	Person Months	-	24	24	24	24	96.0	9,000	-	0.216	0.216	0.216	0.216	0.216	0.864	
o	Chowkidar (2 Nos) (B-1)	Person Months	-	24	24	24	24	96.0	9,000	-	0.216	0.216	0.216	0.216	0.216	0.864	
p	Mali (B-1)	Person Months	-	12	12	12	12	48.0	9,000	-	0.108	0.108	0.108	0.108	0.108	0.432	
q	Sanitary Worker (2 Nos) (B-1)	Person Months	-	24	24	24	24	96.0	9,000	-	0.216	0.216	0.216	0.216	0.216	0.864	
	Sub Total									3.300	6.780	6.780	6.780	6.780	6.780	30.420	
A.5.2.8 Other Operating Costs																	
	Communication																
a	Telephone & Trunk Call Charges	months	-	12	12	12	12	48.0	10,000	-	0.120	0.120	0.120	0.120	0.120	0.480	
b	Postage & Services	months	-	12	12	12	12	48.0	5,000	-	0.060	0.060	0.060	0.060	0.060	0.240	
	Utilities																
c	Water Charges	months	-	12	12	12	12	48.0	5,000	-	0.060	0.060	0.060	0.060	0.060	0.240	
d	Electricity Charges	months	12	12	12	12	12	60.0	15,000	0.180	0.180	0.180	0.180	0.180	0.900		
e	Gas Charges	months	-	12	12	12	12	48.0	2,000	-	0.024	0.024	0.024	0.024	0.024	0.096	
f	Occupancy Cost																
g	Rent, Royalties & Taxes (Rental of Office Building)	months	12	12	12	12	12	60.0	80,000	0.960	0.960	0.960	0.960	0.960	0.960	4.800	
	Travel and Transportation																
h	POL Charges	V.months	-	12	12	12	12	48.0	40,000	-	0.480	0.480	0.480	0.480	0.480	1.920	
	General																
i	Printing ,Publication News Paper, Books, Journals, Proceedings & Periodicals	months	12	12	12	12	12	60.0	2,000	0.024	0.024	0.024	0.024	0.024	0.024	0.120	
j	Publicity & Advertisement	months	12	12	12	12	12	60.0	5,000	0.060	0.060	0.060	0.060	0.060	0.060	0.300	
k	Trainings, Inaugural Seminars, Workshops, Conference	months	12	12	12	12	12	60.0	5,000	0.060	0.060	0.060	0.060	0.060	0.060	0.300	
l	Stationary	months	12	12	12	12	12	60.0	5,000	0.060	0.060	0.060	0.060	0.060	0.060	0.300	
m	Other Miscellaneous	months	12	12	12	12	12	60.0	5,000	0.060	0.060	0.060	0.060	0.060	0.060	0.300	
n	Cost of other stores																
o	Synchronization Hormonal Drugs& Vaccines.	months	12	12	12	12	12	60.0	10,000	0.120	0.120	0.120	0.120	0.120	0.120	0.600	
p	Feeding Charges	months	12	12	12	12	12	60.0	10,000	0.120	0.120	0.120	0.120	0.120	0.120	0.600	
	Repair and Maintenance of Durable Goods.																
q	Transportation / Vehicle Repair	V.months	-	12	12	12	12	48.0	5,000	-	0.060	0.060	0.060	0.060	0.060	0.240	
r	Machinery & Equipment's	months	12	12	12	12	12	60.0	2,000	0.024	0.024	0.024	0.024	0.024	0.024	0.120	
	Sub Total									1.668	2.472	2.472	2.472	2.472	2.472	11.556	
	Total (AI Facilities)									111.813	37.915	17.591	17.591	17.591	17.591	202.500	
A.6 Strengthening of Semen Production Unit																	
A.6.1 Semen collection																	
A.6.1.1	Artificial vagina bull, 30 cm complete, smooth inner liner with corpus, valve, cone, semen vial, warming bag	Nos	-	20	-	-	-	20.0	20,000	-	0.400	-	-	-	-	0.400	
A.6.1.2	Artificial vagina bull, 35 cm complete, smooth inner liner with corpus, valve, cone, semen vial, warming bag	Nos	-	20	-	-	-	20.0	20,000	-	0.400	-	-	-	-	0.400	
A.6.1.3	Artificial vagina bull, 41 cm complete, smooth inner liner with corpus, valve, cone, semen vial, warming bag	Nos	-	20	-	-	-	20.0	20,000	-	0.400	-	-	-	-	0.400	
A.6.1.4	Inner liner for bovine, AV, rough, latex, brown 78 x 650 mm approx rooled ends on both sides	Nos	-	200	-	-	-	200.0	2,000	-	0.400	-	-	-	-	0.400	
A.6.1.5	Cone, latex, approx 27 cm long	Nos	-	200	-	-	-	200.0	1,800	-	0.360	-	-	-	-	0.360	
A.6.1.6	Semen Collection vial, graduated	Nos	-	3,000	-	-	-	3,000.0	760	-	2.280	-	-	-	-	2.280	
A.6.1.7	Rubber plug for semen collection vial, 15 cc	Nos	-	3,000	-	-	-	3,000.0	110	-	0.330	-	-	-	-	0.330	
A.6.1.8	Thermometer up to +100oC graduation 0.1oC, red filling for artificial	Nos	-	24	-	-	-	24.0	410	-	0.010	-	-	-	-	0.010	
A.6.1.9	Greasing stick, 50 cm long	Nos	-	3	-	-	-	3.0	6,100	-	0.018	-	-	-	-	0.018	
A.6.1.10	Minilube TM, non spermicidal lubricant, 3.8 I gallon with pump, 4	Nos	-	10	-	-	-	10.0	10,200	-	0.102	-	-	-	-	0.102	

A.6.1.11	Operation apron, PVC, length 120 cm, green, heavy duty	Nos	-	12	-	-	-	12.0	6,100	-	0.073	-	-	-	0.073
A.6.1.12	Semen collection glove, disposable, 100/package, size M tested for sperm friendliness, no Latex	Nos	-	50	-	-	-	50.0	3,050	-	0.153	-	-	-	0.153
A.6.1.13	Semen collection glove, disposable, 100/package, size L tested for sperm friendliness, no Latex	Nos	-	50	-	-	-	50.0	3,050	-	0.153	-	-	-	0.153
A.6.1.14	Semen collection glove, disposable, 100/packages, size XL tested for sperm friendliness, no Latex	Nos	-	50	-	-	-	50.0	3,050	-	0.153	-	-	-	0.153
A.6.1.15	Oven Stainless steel sterilizer 220°C (IMV model 005732 - 108 L)	Nos	-	1	-	-	-	1.0	510,000	-	0.510	-	-	-	0.510
A.6.1.16	Auto Clave for AV, inner liner and cone sterilization	Nos	-	1	-	-	-	1.0	510,000	-	0.510	-	-	-	0.510
	Sub Total										6.251				6.251
A.6.2	Semen Analysis														
A.6.2.1	Nikon Trinocular Microscope (Eclipse Ci-series) (IMV Technologies, Ref-024374)	Nos	-	2	-	-	-	2.0	2,236,500	-	4.473	-	-	-	4.473
A.6.2.2	Penguin 600 CL Digital Camera with Pixera Penguin/Pro Application Suite software and PC and monitor	Nos	-	2	-	-	-	2.0	510,000	-	1.020	-	-	-	1.020
A.6.2.3	Binocular microscope NIKON E100 (IMV Technologies, Ref-16744)	Nos	-	1	-	-	-	1.0	1,525,000	-	1.525	-	-	-	1.525
A.6.2.4	IVOS Semen Analyzer (IMV Technologies, Ref-018435)	Nos	-	1	-	-	-	1.0	5,085,000	-	5.085	-	-	-	5.085
A.6.2.5	Leja 4 chamber slide (IMV Technologies, Ref-020110)	Nos	-	2,000	-	-	-	2,000.0	800	-	1.600	-	-	-	1.600
A.6.2.6	NucleoCounter (Chemometec Company, Model NC-100TM)	Nos	-	1	-	-	-	1.0	2,340,000	-	2,340	-	-	-	2,340
A.6.2.7	NucleoCassette (100/pkt)	Nos	-	30	-	-	-	30.0	50,800	-	1,524	-	-	-	1,524
A.6.2.8	Reagent A100 (lyses/disaggregation buffer)	Nos	-	20	-	-	-	20.0	10,200	-	0.204	-	-	-	0.204
A.6.2.9	Reagent B (stabilizing buffer)	Nos	-	20	-	-	-	20.0	10,200	-	0.204	-	-	-	0.204
A.6.2.10	CyFlow (Partec Germany, Model-Cube 8) including compatible software.	Nos	-	1	-	-	-	1.0	7,132,600	-	7.133	-	-	-	7.133
A.6.2.11	Compatible CyFlow disposable tubes	Nos	-	3,000	-	-	-	3,000.0	20.0	-	0.060	-	-	-	0.060
A.6.2.12	Advanced® Model 3320 Micro-Osmometer	Nos	-	1	-	-	-	1.0	6,000,000	-	6.000	-	-	-	6.000
A.6.2.13	Sample Tips and Chamber Cleaners, 500/box	Nos	-	5	-	-	-	5.0	61,000	-	0.305	-	-	-	0.305
A.6.2.14	850 mOsm Calibration Standard, 10x2 mL	Nos	-	10	-	-	-	10.0	10,200	-	0.102	-	-	-	0.102
A.6.2.15	Osmolality Linearity Set 100-2,000 mOsm 5x2x5 mL	Nos	-	5	-	-	-	5.0	12,200	-	0.061	-	-	-	0.061
A.6.2.16	Clintrol 290 Reference Solution, 10x2 mL	Nos	-	5	-	-	-	5.0	12,200	-	0.061	-	-	-	0.061
A.6.2.17	Protinol 3-Level Osmometer Control, 3x3x3 mL	Nos	-	5	-	-	-	5.0	12,200	-	0.061	-	-	-	0.061
A.6.2.18	Ease-Eject 20-Microliter Sampler	Nos	-	5	-	-	-	5.0	110,000	-	0.550	-	-	-	0.550
A.6.2.19	Sampler Plunger Wire, 2/pkg	Nos	-	5	-	-	-	5.0	15,250	-	0.076	-	-	-	0.076
A.6.2.20	BENCH PH METER HANNA HI2211 220-240V 50/60HZ A.C.	Nos	-	2	-	-	-	2.0	59,600	-	0.119	-	-	-	0.119
A.6.2.21	Pipette 0.5 to 10 µl Suitable for loading disposable counting chambers	Nos	-	2	-	-	-	2.0	81,500	-	0.163	-	-	-	0.163
A.6.2.22	Tip for pipette 10 µl, 100/bag	Nos	-	5	-	-	-	5.0	15,250	-	0.076	-	-	-	0.076
A.6.2.23	Pipette upto 100 µl Suitable for loading disposable counting chambers	Nos	-	2	-	-	-	2.0	96,580	-	0.193	-	-	-	0.193
A.6.2.24	Tip for pipette 100 µl, 100/bag	Nos	-	5	-	-	-	5.0	20,500	-	0.103	-	-	-	0.103
A.6.2.25	Pipette upto 30 µl Suitable for loading disposable counting chambers	Nos	-	2	-	-	-	2.0	96,600	-	0.193	-	-	-	0.193
A.6.2.26	Tip for pipette 30 µl, 100/bag	Nos	-	5	-	-	-	5.0	20,300	-	0.102	-	-	-	0.102
A.6.2.27	Electronic mixing pipette 100 µl to 1 ml For Sperm Vision: precise sample dilution and preparation	Nos	-	1	-	-	-	1.0	152,500	-	0.153	-	-	-	0.153
A.6.2.28	Charger for pipette 12050/0510 Charging time 1 h approx Input voltage 100 – 240 VAC	Nos	-	1	-	-	-	1.0	20,300	-	0.020	-	-	-	0.020
A.6.2.29	Tip for electronic pipette 12050/0510, upto 1000 µl 768 tips (8x96)/box	Nos	-	3	-	-	-	3.0	20,300	-	0.061	-	-	-	0.061
A.6.2.30	Spermac, semen stain for morphology, 50 ml	Nos	-	10	-	-	-	10.0	30,500	-	0.305	-	-	-	0.305
A.6.2.31	Dye-bath 'Coplin'	Nos	-	2	-	-	-	2.0	2,000	-	0.004	-	-	-	0.004
A.6.2.32	Eosin G, 2% solution, for supravital staining, 50 cc	Nos	-	10	-	-	-	10.0	2,000	-	0.020	-	-	-	0.020
A.6.2.33	Laboratory heating plate with preadjusted temperature (37oC) integrated control unit, external power supply	Nos	-	1	-	-	-	1.0	254,000	-	0.254	-	-	-	0.254
	Sub Total										34.149				34.149
A.6.3	Preparation of Extender														
A.6.3.1	Water bath with circulation 45 l, electronic control With racks for 20 bottles/72 vials, diagonal lid which deviates condensation interior dimensions (LxWxH): 818 mm x 516 mm x 296 mm temperature range upto +95oC 230 V 50/60 Hz	Nos	-	2	-	-	-	2.0	457,500	-	0.915	-	-	-	0.915
A.6.3.2	Glass bottle, 250 ml graduated, sterilizable	Nos	-	10	-	-	-	10.0	800	-	0.008	-	-	-	0.008
A.6.3.3	Magnetic stirrer with heater, connection for the thermometer heating power 660 W, surface temperature: upto + 300oC, Speed range 50-1100 l/min infinitely variable setting, Voltage 230 V 50/60 Hz	Nos	-	2	-	-	-	2.0	132,200	-	0.264	-	-	-	0.264
A.6.3.4	Electronic contact thermometer for magnetic stirrer With Fuzzlyogica regulation, temperature sensor H62 measuring range: 10 to 400oC	Nos	-	2	-	-	-	2.0	81,400	-	0.163	-	-	-	0.163
A.6.3.5	Magnetic stir bar, 30 mm	Nos	-	2	-	-	-	2.0	1,020	-	0.002	-	-	-	0.002
A.6.3.6	Pocket-pH/mV-meter, pH330i battery operated, with data logger, robust and waterproofed hand-hel unit with temperature sensor, in a set with case	Nos	-	1	-	-	-	1.0	12,200	-	0.012	-	-	-	0.012

A.6.3.7	Electronic precision balance, weighing range upto 2 kg readability 0.1g, weighing pan 130 x 130 mm reproducibility 0.1g, linearity +0.2g with calibration program for 230 V/9 V battery, with computer interface	Nos	-	2	-	-	-	2.0	1,120,000	-	2.240	-	-	-	2.240	
A.6.3.8	Erlenmeyer flask wide neck, graduated, 2000ml	Nos	-	10	-	-	-	10.0	8,130	-	0.081	-	-	-	0.081	
A.6.3.9	Erlenmeyer flask wide neck, graduated, 1000 ml	Nos	-	10	-	-	-	10.0	8,130	-	0.081	-	-	-	0.081	
A.6.3.10	Automatic bi-distiller, 4 l/h, cooling water approx 120l: 400V/3Ph: 50/60Hz, 6.5KW WxDx1 550x280x70	Nos	-	1	-	-	-	1.0	813,000	-	0.813	-	-	-	0.813	
A.6.3.11	Container for distilled water, 60L	Nos	-	2	-	-	-	2.0	50,900	-	0.102	-	-	-	0.102	
A.6.3.12	Triladyl, 250 g, 100/box for deep freezing of bull semen	Nos	-	50	-	-	-	50.0	5,100	-	0.255	-	-	-	0.255	
A.6.3.13	Filter for egg yolk diluents, funnel shaped, non-sterile	Nos	-	500	-	-	-	500.0	85	-	0.043	-	-	-	0.043	
A.6.3.14	AndroMed, 200 cc, 100/box Concentrated preservation medium for dilution and freezing of bull semen, free of components of animal origin	Nos	-	75	-	-	-	75.0	8,130	-	0.610	-	-	-	0.610	
Sub Total											-	5.589	-	-	-	5.589
A.6.4 Filling and Packaging of Semen																
A.6.4.1	CombiSystem MPP Quattro and MiniJet Printer (Minitube Model-13018/0002)	Nos	-	1	-	-	-	1.0	1,120,000	-	1.120	-	-	-	1.120	
A.6.4.2	MPP Quattro Filling nozzle, 0.25 ml	Nos	-	24	-	-	-	24.0	12,200	-	0.293	-	-	-	0.293	
A.6.4.3	MPP Quattro Filling nozzle, 0.5 ml	Nos	-	24	-	-	-	24.0	12,200	-	0.293	-	-	-	0.293	
A.6.4.4	MPP Quattro Suction nozzle, 0.25 ml	Nos	-	24	-	-	-	24.0	12,200	-	0.293	-	-	-	0.293	
A.6.4.5	MPP Quattro Suction nozzle, 0.5 ml	Nos	-	24	-	-	-	24.0	12,200	-	0.293	-	-	-	0.293	
A.6.4.6	MPP Quattro Washers, 5,000/bag	Nos	-	5	-	-	-	5.0	6,100	-	0.031	-	-	-	0.031	
A.6.4.7	MPP Quattro Silicone Filling Tubing, 100/bag and along with sealer	Nos	-	30	-	-	-	30.0	10,200	-	0.306	-	-	-	0.306	
A.6.4.8	MPP Quattro Semen cones, 100/pkg and along with Sealer	Nos	-	30	-	-	-	30.0	10,200	-	0.306	-	-	-	0.306	
A.6.4.9	MPP Quattro Fixing unit for nozzles	Nos	-	2	-	-	-	2.0	5,100	-	0.010	-	-	-	0.010	
A.6.4.10	Cold Handling Cabinet, Large, 230 V, works area 200 x 90 cm (Minitube Model-14335/0403)	Nos	-	2	-	-	-	2.0	2,036,500	-	4.073	-	-	-	4.073	
Sub Total											-	7.017	-	-	-	7.017
A.6.5 Semen Freezing																
A.6.5.1	Digitcool Programmable Automatic Freezer (IMV Technologies, Ref. 007262)	Nos	-	1	-	-	-	1.0	12,200,000	-	12.200	-	-	-	12.200	
A.6.5.2	Pressurized 230 liter LN2 container with hose (IMV Technologies, Ref. 0021364)	Nos	-	1	-	-	-	1.0	20,400	-	0.020	-	-	-	0.020	
A.6.5.3	Multi-species 3T software (IMV Technologies, Ref. 0015397)	Nos	-	1	-	-	-	1.0	152,500	-	0.153	-	-	-	0.153	
A.6.5.4	RS232 connection cable (IMV Technologies, Ref. 007186)	Nos	-	1	-	-	-	1.0	50,800	-	0.051	-	-	-	0.051	
A.6.5.5	PC + monitor (IMV Technologies, Ref. 003236)	Nos	-	1	-	-	-	1.0	203,400	-	0.203	-	-	-	0.203	
A.6.5.6	Funnel (IMV Technologies, Ref. 007125)	Nos	-	2	-	-	-	2.0	15,250	-	0.031	-	-	-	0.031	
A.6.5.7	Funnel Divider (IMV Technologies, Ref. 007124)	Nos	-	2	-	-	-	2.0	15,250	-	0.031	-	-	-	0.031	
A.6.5.8	Liquid nitrogen container TP 100 for transport/storage	Nos	-	2	-	-	-	2.0	610,000	-	1.220	-	-	-	1.220	
A.6.5.9	Roller base for pressure container TP 100 (16501/0070)	Nos	-	2	-	-	-	2.0	76,250	-	0.153	-	-	-	0.153	
A.6.5.10	Discharge tube for pressure container TP100	Nos	-	1	-	-	-	1.0	203,300	-	0.203	-	-	-	0.203	
A.6.5.11	Rack for 100 semen straws 0.5cc	Nos	-	20	-	-	-	20.0	40,700	-	0.814	-	-	-	0.814	
A.6.5.12	Rack for 100 semen straws 0.25cc	Nos	-	20	-	-	-	20.0	40,700	-	0.814	-	-	-	0.814	
A.6.5.13	Loading and counting device for rack, 100 x 0.5 cc straws	Nos	-	1	-	-	-	1.0	122,000	-	0.122	-	-	-	0.122	
A.6.5.14	Protecting gloves, 1 pair	Nos	-	10	-	-	-	10.0	3,050	-	0.031	-	-	-	0.031	
A.6.5.15	Tweezers in stainless steel, length 25 cm	Nos	-	5	-	-	-	5.0	5,100	-	0.026	-	-	-	0.026	
A.6.5.16	Tweezers with curved tip, length 30 cm	Nos	-	5	-	-	-	5.0	5,100	-	0.026	-	-	-	0.026	
A.6.5.17	Grasping forceps for plastic goblet, length 70 cm	Nos	-	5	-	-	-	5.0	5,100	-	0.026	-	-	-	0.026	
A.6.5.18	Goblet, diameter 65 mm, white	Nos	-	1,000	-	-	-	1,000.0	210	-	0.210	-	-	-	0.210	
A.6.5.19	Identification rod white for 0.5 cc straws, 140 mm long.	Nos	-	3,000	-	-	-	3,000.0	20	-	0.061	-	-	-	0.061	
A.6.5.20	Funnel made of stainless steel for goblets 65 mm	Nos	-	1	-	-	-	1.0	20,300	-	0.020	-	-	-	0.020	
A.6.5.21	MVE Cryo-Container XLC 230, capacity 89 l static evaporation rate 2.8 l/day, neck opening 408 mm, working height 683 mm total height 1150	Nos	-	2	-	-	-	2.0	457,500	-	0.915	-	-	-	0.915	
A.6.5.22	MVE Cryo – Container 400 L, to store Semen of bull under progeny test.	Nos	-	2	-	-	-	2.0	1,120,000	-	2.240	-	-	-	2.240	
Sub Total											-	19.567	-	-	-	19.567
Total (SMU)											-	72.573	-	-	-	72.573

A.7 Rehabilitation of Flood/Rain Affected Institutions

A.7.1 Civil Work

A.7.1.1	Veterinary Hospitals/Dispensaries/Stockpile under DAH	Nos	20	25	25	25	5	100	2,050,000	41,000	51,250	51,250	51,250	10,250	205,000
A.7.1.2	Veterinary Diagnostic Sub Centers under DCVDL	Nos	1	2	2	1	-	6	2,000,000	2,000	4,000	4,000	2,000	-	12,000
A.7.1.3	Livestock Production Centers/SPU under DAB	Nos	2	3	3	4	1	13	2,000,000	4,000	6,000	6,000	8,000	2,000	26,000
A.7.1.4	Supervision and TA for Rehabilitation									1,410	1,838	1,838	1,838	0,368	7,290
Sub Total										48,410	63,088	63,088	63,088	12,618	250,290

A.7.2 Goods

A.7.2.1	Furniture Fixture and Allied Equipment (VH/Disp,VDSC,LPC)	Nos	23	29	30	30	6	118.0	205,600	4,729	5,962	6,168	6,168	1,234	24,261
A.7.2.2	Furniture Fixture and Allied Equipment (Stockpile)	Lump Sum	-	1	-	-	-	Lump Sum	1,000,000	-	1,000	-	-	-	1,000
Sub Total										4,729	6,962	6,168	6,168	1,234	25,261

Total (Flood/Rain Affected Institutions)

53,139	70,050	69,256	69,256	13,851	275,551
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Grand Total (Institutional Development)

182,952	186,538	106,846	92,846	31,442	600,625
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Base Costs (Capacity Building + Institutional Development)

213,324	262,603	173,791	160,581	54,574	864,875
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Third Part Monitoring (0.5%)	1,067	1,313	0,869	0,803	0,273	4,324
Physical Contingencies (1%)	2,133	2,626	1,738	1,606	0,546	8,649
Price Contingencies (Civil works-Rehabilitation)	-	4,101	8,201	12,618	2,524	27,443
Total Cost (Capacity Building + Institutional Development)	216,524	270,643	184,600	175,607	57,916	905,291

*Seminars/Farmer Days/hands on Training/Workshops/Dissemination of Information/Demonstrations will be arranged in targeted districts
While Training of AI/Training of Livestock Extension/Management/ New Technologies/ will be for all districts Sindh

1.040

1.040 Pakistan

Sindh Livestock Growth Project

B Dairy Value Chain

Sr.	Description	Unit	Quantities							Unit Costs Rs	Base Costs (Rs Million)				
			Year-1	Year-2	Year-3	Year-4	Year-5	Total	Year-1		Year-2	Year-3	Year-4	Year-5	Total
B.1	Improved milk production and marketing														
B.1.1	Milk Collection and Bulking, Establishment of Collection Centers														
	Establishment of Collection Centers														
B.1.1.1	Civil Work (Chillers' room size 18x18 ft)	Nos	55	18	50	30	-	153	810,000	44.550	14.580	40.500	24.300	-	123.930
B.1.1.2	Chiller & Generator / alternate source of energy with Installation	Nos	55	18	50	30	-	153	1,150,000	63.250	20.700	57.500	34.500	-	175.950
B.1.1.3	Energisation, Furniture, Fixture	Package	55	18	50	30	-	153	90,000	4.950	1.620	4.500	2.700	-	13.770
B.1.1.4	Repair and Maintenance	Lump Sum							Lump Sum	0.083	0.577	0.805	1.275	1.530	4.270
B.1.1.5	Electricity Costs (50% 4 hour/day)	Lump Sum							Lump Sum	7.681	10.195	17.177	21.367	21.367	77.786
B.1.1.6	Diesel Costs (50% 2 hour/day)	Lump Sum							Lump Sum	17.424	23.126	38.966	48.470	48.470	176.458
B.1.1.7	Chiller Operator cum Record Keeper (B-5)	person month	660	876	1,476	1,836	1,836	6,684	10,000	6.600	8.760	14.760	18.360	18.360	66.840
B.1.1.8	Gnard/Chowkidar (B-1)	person month	660	876	1,476	1,836	1,836	6,684	9,000	5.940	7.884	13.284	16.524	16.524	60.156
										150.477	87.442	187.492	167.496	106.251	699.159
B.1.2	Preventive and curative animal health Services by DAH														
B.1.2.1	Tagging	Animal	11,000	3,600	10,000	6,000	-	30,600	150	1.650	0.540	1.500	0.900	-	4.590
B.1.2.2	Vaccination	Animal	11,000	14,600	24,600	30,600	30,600	111,400	1,010	11.110	14.746	24.846	30.906	30.906	112.514
B.1.2.3	Drench	Animal	11,000	14,600	24,600	30,600	30,600	111,400	500	5.500	7.300	12.300	15.300	15.300	55.700
B.1.2.4	Medicine	Animal	1,100	1,460	2,460	3,060	3,060	11,140	500	0.550	0.730	1.230	1.530	1.530	5.570
B.1.2.5	Syringes	Animal	2,200	2,920	4,920	6,120	6,120	22,280	20	0.044	0.058	0.098	0.122	0.122	0.446
B.1.2.6	Drencher	Nos	28	37	62	77	77	279	2,000	0.055	0.073	0.123	0.153	0.153	0.557
B.1.2.7	Auto Vaccinator	Nos	28	37	62	77	77	279	2,000	0.055	0.073	0.123	0.153	0.153	0.557
B.1.2.8	Tagging Machine	Nos	55	18	50	30	-	153	5,000	0.275	0.090	0.250	0.150	-	0.765
B.1.2.9	Deep Freezers/refrigerators	Nos	8	8	8	8	-	32	50,000	0.400	0.400	0.400	0.400	-	1.600
B.1.2.10	Vaccine Carrier/cooler for vaccine transportation	Nos	110	36	100	60	-	306	1,000	0.110	0.036	0.100	0.060	-	0.306
B.1.2.11	Medicine/Vaccine carrier for field	Nos	110	36	100	60	-	306	4,500	0.495	0.162	0.450	0.270	-	1.377
B.1.2.12	Gel pack refrigerant	Nos	440	144	400	240	-	1,224	500	0.220	0.072	0.200	0.120	-	0.612
B.1.2.13	Other veterinary instruments/chemicals	Lump Sum							Lump sum	5.500	2.000	5.000	3.000	-	15.500
B.1.2.14	Per diem for service providers	Lump Sum							Lump sum	6.600	8.760	14.760	18.360	18.360	66.840
B.1.2.15	Per diem for Stock Assistant	Lump Sum							Lump sum	3.300	4.380	7.380	9.180	9.180	33.420
B.1.2.16	Motor Cycles for Service Providers (70 cc)	Nos	110	36	100	60	-	306	75,000	8.250	2.700	7.500	4.500	-	22.950
	Sub Total									44.114	42.120	76.260	85.104	75.704	323.304
	Allowance to Seconded Staff on Additional Charge or on Intermittent basis (as per notification of GoSindh)														
B.1.2.17	Directors (DAH/CVDL/DAB)	person months	36	36	36	36	36	180	20,000	0.720	0.720	0.720	0.720	0.720	3.600
B.1.2.18	Deputy Directors Livestock/Animal Husbandry (2 will be added each year)	person months	24	48	72	96	96	336	10,000	0.240	0.480	0.720	0.960	0.960	3.360
	Sub Total									0.960	1.200	1.440	1.680	1.680	6.960

Mobility for veterinary health Service Providers under DAH															
B.1.2.19	Operation Vehicle 800 cc (incl. Reg)	Vehicle	2	-	-	-	-	2	1,100,000	2,200	-	-	-	-	2,200
B.1.2.20	Operation Vehicle 1600 cc (incl. Reg.)	Vehicle	-	1	1	-	-	2	2,500,000	-	2,500	2,500	-	-	5,000
B.1.2.21	General Repair of Abadoned Vehicles of DAH	Vehicle	-	1	1	2	-	4	250,000	-	0.250	0.250	0.500	-	1,000
B.1.2.22	POL for 800 cc	V Months	24	24	24	24	24	120	30,000	0.720	0.720	0.720	0.720	0.720	3,600
B.1.2.23	POL for 1600cc	V Months	-	12	24	24	24	84	35,000	-	0.420	0.840	0.840	0.840	2,940
B.1.2.24	POL for Existing Govt. Vehicles (After Gen. Repaire)	V Months	-	12	24	48	48								
								132	35,000	-	0.420	0.840	1.680	1.680	4,620
B.1.2.25	Drivers (2 each year) (B-5)	Person month	24	48	72	96	96	336	10,000	0.240	0.480	0.720	0.960	0.960	3,360
B.1.2.26	Repair & Maintenance of vehicles	Veh Month	-	-	24	48	72	144	10,000	-	-	0.240	0.480	0.720	1,440
B.1.2.27	Multimedia	Nos	2	2	2	2	-	8	35,000	0.070	0.070	0.070	0.070	-	0,280
Sub Total										3.230	4.860	6.180	5.250	4.920	24.440
B.1.3 Herd Health Screening by DCVDL															
B.1.3.1	Collection material per adult animal (5 sample per animal).	Animal	11,000	14,600	24,600	30,600	-	80,800	100	1,100	1,460	2,460	3,060	-	8,080
B.1.3.2	Sample analysis and communication of results.	Nos	11,000	14,600	24,600	30,600	-	80,800	150	1,650	2,190	3,690	4,590	-	12,120
B.1.3.3	Daily Allowance/ Hiring for sample collection 4 persons per team (100 animals/visit).	Person days	880	1,168	1,968	2,448	-	6,464	2,000	1,760	2,336	3,936	4,896	-	12,928
Sub Total										4.510	5.986	10.086	12.546	-	33.128
Allowance to Seconded Staff on Additional Charge or Intermittent basis															
B.1.3.4	Research Officer/Senior Research Officers involved in sample analysis (2 No.)	person months	24	24	24	24	24	120	10,000	0.240	0.240	0.240	0.240	0.240	1,200
B.1.3.5	Laboratory Assistant/Technician involved in sample analysis (2 No.)	person months	24	24	24	24	24	120	3,000	0.072	0.072	0.072	0.072	0.072	0,360
Sub Total										0.312	0.312	0.312	0.312	0.312	1.560
Mobility for herd health screening Service Providers under CVDL															
B.1.3.6	Operation Vehicle 800 cc (incl. Reg.etc) - 4 Vehicles with govt. would be added in the fleet after repairs	Vehicle	2	-	-	-	-	2	1,100,000	2,200	-	-	-	-	2,200
B.1.3.7	Operation Vehicle 1600 cc (incl. Reg. etc)	Vehicle	-	1	1	-	-	2	2,500,000	-	2,500	2,500	-	-	5,000
Sub Total										2.200	2.500	2.500	-	-	7.200
Operating Costs															
B.1.3.8	POL for vehicle-800 cc	Veh Month	24	24	24	24	24	120	30,000	0.720	0.720	0.720	0.720	0.720	3,600
B.1.3.9	POL for vehicle-1600 cc	Veh Month	-	12	24	24	24	84	35,000	-	0.420	0.840	0.840	0.840	2,940
B.1.3.10	POL for vehicle-from GoSindh added in the fleet	Veh Month	-	12	24	36	60	132	35,000	-	0.420	0.840	1.260	2.100	4,620
B.1.3.11	POL for existing generator	Gen Month	12	12	12	12	12	60	60,000	0.720	0.720	0.720	0.720	0.720	3,600
B.1.3.12	Repair & Maintenance of vehicles	Veh Month	-	-	24	48	72	144	10,000	-	-	0.240	0.480	0.720	1,440
B.1.3.13	General Repair of Abadoned Vehicles of DAH	Nos	-	1	1	2	-	4	250,000	-	0.250	0.250	0.500	-	1,000
B.1.3.14	Repair & Maintenance of Lab: Equipments.	Lump Sum							Lump Sum	-	0.300	0.300	0.300	-	0,900
Sub Total										1.440	2.830	3.910	4.820	5.100	18.100
Incremental Staff															
B.1.3.15	Drivers (B-5)	person month	24	48	72	96	96	336	10,000	0.240	0.480	0.720	0.960	0.960	3,360
Sub Total										0.240	0.480	0.720	0.960	0.960	3.360
B.1.4 Artificial Insemination Services															
B.1.4.1	Exotic Semen Doses	Doses	6,000	7,000	10,000	16,000	-	39,000	2,000	12,000	14,000	20,000	32,000	-	78,000
B.1.4.2	A.I Sheath	Nos	12,000	14,000	20,000	32,000	-	78,000	50	0.600	0.700	1.000	1.600	-	3,900
B.1.4.3	Hand Gloves full arms	Nos	12,000	14,000	20,000	32,000	-	78,000	15	0.180	0.210	0.300	0.480	-	1,170
B.1.4.4	Synchronization Hormone	Vials	30,750	30,750	30,750	30,750	-	123,000	1,000	30,750	30,750	30,750	30,750	-	123,000

B.1.4.5	AI Kit	Nos	10	10	10	10	-	40	15,000	0.150	0.150	0.150	0.150	-	0.600
B.1.4.6	A.I Container 40 Liter	Nos	2	2	2	2	-	8	250,000	0.500	0.500	0.500	0.500	-	2.000
B.1.4.7	A.I Container 2 Liter	Nos	6	6	6	6	-	24	120,000	0.720	0.720	0.720	0.720	-	2.880
Sub Total										44.900	47.030	53.420	66.200	-	211.550
B.1.4.8	Motor cycles 70 cc (4-Motorcycles per District)	Nos	8	8	8	8	-	32	75,000	0.600	0.600	0.600	0.600	-	2.400
B.1.4.9	Per Diem for Officer	Nos	2	4	6	8	-	20	60,000	0.120	0.240	0.360	0.480	-	1.200
B.1.4.10	Per Diem for Livestock Inspectors	Nos	8	16	24	32	-	80	35,000	0.280	0.560	0.840	1.120	-	2.800
B.1.4.11	Pregnancy Diagnosis Machine/ ultrasound Machine	Nos	2	2	2	2	-	8	1,000,000	2.000	2.000	2.000	2.000	-	8.000
B.1.4.12	Training for Pregnancy Diagnosis/ ultrasound Machine	Nos	8	8	-	-	-	16	70,000	0.560	0.560	-	-	-	1.120
Sub Total										3.560	3.960	3.800	4.200	-	15.520
Mobility for AI Service Providers under DAB															
B.1.4.13	Operation Vehicle 800 cc (incl. Reg. etc.)	Vehicle	2	2	2	2	-	8	1,100,000	2.200	2.200	2.200	2.200	-	8.800
B.1.4.14	POL	V Months	24	48	72	96	96	336	30,000	0.720	1.440	2.160	2.880	2.880	10.080
B.1.4.15	Drivers (B-5)	person month	24	48	72	96	96	336	10,000	0.240	0.480	0.720	0.960	0.960	3.360
B.1.4.16	Repair & Maintenances	V Months	-	24	48	72	96	240	10,000	-	0.240	0.480	0.720	0.960	2.400
Sub Total										3.160	4.360	5.560	6.760	4.800	24.640
Base Costs (Livestock)										259.103	203.080	351.681	355.328	199.727	1,368.920
Third Part Monitoring (0.5%)										1.296	1.015	1.758	1.777	0.999	6.845
Physical Contingencies (1%)										2.591	2.031	3.517	3.553	1.997	13.689
Price Contingencies (Civil works-Chiller's rooms)										-	0.948	5.265	4.860	-	11.073
Total Cost (Dairy Value Chain)										262.990	207.074	362.221	365.518	202.723	1,400.527

Pakistan
Sindh Agricultural Growth Project (Livestock Component)
C Project Management and Monitoring and Evaluation

Sr.	Description	Unit	Quantities						Unit Costs Rs	Base Costs (Rs Million)					
			Year-1	Year-2	Year-3	Year-4	Year-5	Total		Year-1	Year-2	Year-3	Year-4	Year-5	Total
1	PMU Livestock														
C.1	Pay/Project Allowance for Seconded Staff*														
C.1.1	Project Director Livestock	person month	12	12	12	12	12	60	250,000	3,000	3,000	3,000	3,000	3,000	15,000
C.1.2	Deputy Project Director (I)	person month	12	12	12	12	12	60	150,000	1,800	1,800	1,800	1,800	1,800	9,000
C.1.3	Deputy Project Director (II)	person month	12	12	12	12	12	60	150,000	1,800	1,800	1,800	1,800	1,800	9,000
C.2	Incremental Staff														
C.2.1	Accounts Officer (Market Based)	person month	12	12	12	12	12	60	140,000	1,680	1,680	1,680	1,680	1,680	8,400
C.2.2	Accounts Clerk/Key punch operator (B-7)	person month	12	12	12	12	12	60	12,000	0.144	0.144	0.144	0.144	0.144	0.720
C.2.3	Procurement Specialists (Market Based)	person month	12	12	12	12	12	60	160,000	1,920	1,920	1,920	1,920	1,920	9,600
C.2.4	Procurement Clerk/Key punch operator (B-7)	person month	12	12	12	12	12	60	12,000	0.144	0.144	0.144	0.144	0.144	0.720
C.2.5	Database Operator/Computer Operator (B-16)	person month	12	12	12	12	12	60	30,000	0.360	0.360	0.360	0.360	0.360	1,800
C.2.6	Office Manager (B-16)	person month	12	12	12	12	12	60	30,000	0.360	0.360	0.360	0.360	0.360	1,800
C.2.7	Office Assistant (B-12)	person month	12	12	12	12	12	60	15,000	0.180	0.180	0.180	0.180	0.180	0,900
C.2.7	Receptionist/Secretary (B-11)	person month	12	12	12	12	12	60	15,000	0.180	0.180	0.180	0.180	0.180	0,900
C.2.8	Driver (6 Nos) (B-5)	person month	72	72	72	72	72	360	10,000	0.720	0.720	0.720	0.720	0.720	3,600
C.2.9	Office Boy 2 Nos (B-1)	person month	24	24	24	24	24	120	9,000	0.216	0.216	0.216	0.216	0.216	1,080
C.2.10	Chowkidar (B-1)	person month	12	12	12	12	12	60	9,000	0.108	0.108	0.108	0.108	0.108	0,540
C.2.11	Sweeper (B-1)	person month	12	12	12	12	12	60	9,000	0.108	0.108	0.108	0.108	0.108	0,540
C.2.12	Provision for Annual Increment														
	Sub Total (Incremental Staff)									12.720	13.610	13.699	13.797	13.905	67.732
C.3	Goods														
C.3.1	Office Equipment														
C.3.1.1	Laptops	No	5	-	-	-	-	5	100,000	0.500	-	-	-	-	0.500
C.3.1.2	Desktop Computers	No	4	-	-	-	-	4	50,000	0.200	-	-	-	-	0.200
C.3.1.3	Printers/scanners/photocopiers	No	4	-	-	-	-	4	60,000	0.240	-	-	-	-	0.240
C.3.1.4	Heavy duty photocopier/scanner/printer	No	1	-	-	-	-	1	435,000	0.435	-	-	-	-	0.435
C.3.1.5	Refrigerator	No	2	-	-	-	-	2	60,000	0.120	-	-	-	-	0.120
C.3.1.6	Multimedia Projector with Screen & Other Accessories	No	1	-	1	-	-	2	200,000	0.200	-	0.200	-	-	0.400
C.3.1.7	Fax Machine	No	2	-	-	-	-	2	40,000	0.080	-	-	-	-	0.080
C.3.1.9	Telephone Exchange/10 phones	No	1	-	-	-	-	1	50,000	0.050	-	-	-	-	0.050
C.3.1.10	Mobile/Cell Phones	No	5	-	-	-	-	5	10,000	0.050	-	-	-	-	0.050
C.3.1.11	UPS with Batteries	No	4	-	-	-	-	4	70,000	0.280	-	-	-	-	0.280
C.3.1.12	Wifi/ Internet set Up	Package	4	-	-	-	-	4	20,000	0.080	-	-	-	-	0.080
C.3.1.13	Generator 5 KVA	No	1	-	-	-	-	1	95,000	0.095	-	-	-	-	0.095
C.3.1.14	Networking setup	Lump sum	1	-	-	-	-	1	100,000	0.100	-	-	-	-	0.100
	Sub Total (Equipment)									2.430	-	0.200	-	-	2.630
C.3a	PIFRA Connectivity Costs														
a.	Licence Procurement Chrges	Lump sum	1	-	-	-	-	1	Lump sum	1,400	-	-	-	-	1,400
b.	Licence Maintenance Chrges	Lump sum							Lump sum	0.308	0.308	0.308	0.308	0.308	1,540
c.	Connectivity Charges	Lump sum							Lump sum	0.120	0.120	0.120	0.120	0.120	0,600
d.	Hardware	Lump sum							Lump sum	0.600	-	-	-	-	0,600
	Sub Total									2.428	0.428	0.428	0.428	0.428	4,140
C.3.2	Furniture and Fixture														
C.3.2.1	Air conditioners	No	6	-	-	-	-	6	60,000	0.360	-	-	-	-	0.360
C.3.2.2	Office Desks/Chairs and other fixtures	Lump Sum							Lump Sum	0.500	-	-	-	-	0,500
C.3.2.3	Conference Table/Chairs	No	15	-	-	-	-	15	100,000	1,500	-	-	-	-	1,500
C.3.2.4	Filling Cabinet	No	8	-	-	-	-	8	13,000	0.104	-	-	-	-	0.104
	Sub Total (Furniture and Fixture)									2.464	-	-	-	-	2.464
C.3.3	Vehicles														
C.3.3.1	Operation Vehicle upto 2500cc (incl. Reg)	Nos	2	-	-	-	-	2	4,000,000	8,000	-	-	-	-	8,000
C.3.3.2	Staff Vehicle upto 1300 cc (incl. Reg)	Nos	1	-	-	-	-	1	2,000,000	2,000	-	-	-	-	2,000
C.3.3.3	Operation Vehicle upto 1800cc (incl. Reg)	Nos	1	-	-	-	-	1	2,500,000	2,500	-	-	-	-	2,500
C.3.3.4	Staff Vehicle 800 cc (incl. Reg.etc)	Nos	1	-	-	-	-	1	1,100,000	1,100	-	-	-	-	1,100
C.3.3.5	Operation Vehicle upto 1600 cc (incl. Reg. etc)	Nos	1	-	-	-	-	1	2,500,000	2,500	-	-	-	-	2,500
C.3.3.6	Motor cycles 70 cc (For local work)	Nos	2	-	-	-	-	2	75,000	0.150	-	-	-	-	0.150
	Sub Total (Vehicles)									16.250	-	-	-	-	16.250
C.3.4	Other Operating Costs														
C.3.4.1	Office Building Rental	months	12	12	12	12	12	60	100,000	1,200	1,200	1,200	1,200	1,200	6,000
C.3.4.2	Telephone and utilities	months	12	12	12	12	12	60	20,000	0.240	0.240	0.240	0.240	0.240	1,200
C.3.4.3	Office Supplies	months	12	12	12	12	12	60	20,000	0.240	0.240	0.240	0.240	0.240	1,200
C.3.4.4	Vehicles Operating & Maintenance (including POL)	V. months	72	72	72	72	72	360	50,000	3,600	3,600	3,600	3,600	3,600	18,000
C.3.4.5	POL for Generator	months	24	24	24	24	24	120	15,000	0.360	0.360	0.360	0.360	0.360	1,800
C.3.4.6	Daily Allowance (Perdiem)	Lump Sum							Lump Sum	2,016	2,880	3,456	2,880	2,880	14,112
C.3.4.7	Internal Audit Outsourced	Lump Sum							Lump Sum	2,400	2,400	2,400	2,400	2,400	12,000
	Sub Total (Other Operating Costs)									10.056	10.920	11.496	10.920	10.920	54.312
	Total (PMU Livestock)									46.348	24.958	25.823	25.145	25.253	147.528

C.4	DPIU Livestock (4 DPIUs)**														
C.4.1	District Field Managers-I (B-17 or 18) (Total 4)	Person months	12	24	36	48	48	168	50,000	0.600	1.200	1.800	2.400	2.400	8.400
C.4.2	Accountant (B-16 or 17) (Total 4)	Person months	12	24	36	48	48	168	50,000	0.600	1.200	1.800	2.400	2.400	8.400
C.4.3	Lady Livestock Supervisor (B-16) (Total 8)	Person months	24	48	72	96	96	336	30,000	0.720	1.440	2.160	2.880	2.880	10.080
C.4.4	Driver/Messenger (B-5) (Total 4)	person month	12	24	36	48	48	168	10,000	0.120	0.240	0.360	0.480	0.480	1.680
C.4.5	Junior Clerk/Key punch operator (B-5) (Total 4)	Person months	12	24	36	48	48	168	10,000	0.120	0.240	0.360	0.480	0.480	1.680
C.4.6	Office Boys (B-1) (Total 4)	Person months	12	24	36	48	48	168	9,000	0.108	0.216	0.324	0.432	0.432	1.512
C.4.7	Sweeper/Office Cleaner (B-1) (Total 4)	Person months	12	24	36	48	48	168	9,000	0.108	0.216	0.324	0.432	0.432	1.512
C.4.8	Security Guard/Chowkidar (B-1) (Total 4)	Person months	12	24	36	48	48	168	9,000	0.108	0.216	0.324	0.432	0.432	1.512
	Provision for Annual Increment														
	Sub Total									2.484	8.222	11.031	13.873	14.267	49.878
	Project Allowance to Seconded Staff (incentive on daily basis)														
	Master Trainers /Lead Trainer	person months	24	48	72	96	96	336	20,000	0.480	0.960	1.440	1.920	1.920	6.720
	Sub Total									0.480	0.960	1.440	1.920	1.920	6.720
C.5	Goods														
C.5.1	Equipment														
C.5.1.1	Computers (Laptop)	Nos	1	1	1	1	-	4	80,000	0.080	0.080	0.080	0.080	-	0.320
C.5.1.2	Computers (Desktop)	Nos	1	1	1	1	-	4	60,000	0.060	0.060	0.060	0.060	-	0.240
C.5.1.3	Laser Printer	Nos	1	1	1	1	-	4	40,000	0.040	0.040	0.040	0.040	-	0.160
C.5.1.4	UPS with Batteries	Nos	1	1	1	1	-	4	75,000	0.075	0.075	0.075	0.075	-	0.300
C.5.1.5	Scanner	Nos	1	1	1	1	-	4	20,000	0.020	0.020	0.020	0.020	-	0.080
C.5.1.6	Generator 3 KVA	Nos	1	1	1	1	-	4	80,000	0.080	0.080	0.080	0.080	-	0.320
C.5.1.7	Software/ Wifi etc.	Package	1	1	1	1	-	4	10,000	0.010	0.010	0.010	0.010	-	0.040
C.5.1.8	Facsimile	Nos	1	1	1	1	-	4	20,000	0.020	0.020	0.020	0.020	-	0.080
C.5.1.9	Airconditioners	Nos	1	1	1	1	-	4	60,000	0.060	0.060	0.060	0.060	-	0.240
C.5.1.10	Multimedia Projector	Nos	1	1	1	1	-	4	75,000	0.075	0.075	0.075	0.075	-	0.300
C.5.1.11	Furniture & Fixture	Package	1	1	1	1	-	4	400,000	0.400	0.400	0.400	0.400	-	1.600
	Sub Total (Equipment)									0.920	0.920	0.920	0.920	-	3.680
C.5.2.1	Vehicles for (4 DPIU-Livestock)														
C.5.2.1	Staff Vehicle 1600 cc (incl. Reg. etc)	Nos	1	1	1	1	-	4	2,500,000	2.500	2.500	2.500	2.500	-	10.000
	Sub Total (Vehicles)									2.500	2.500	2.500	2.500	-	10.000
C.5.3	Other Operating Costs (4 DPIU-Livestock)														
C.5.3.1	Office Building Rental (HQ)	months	12	24	36	48	48	168	80,000	0.960	1.920	2.880	3.840	3.840	13.440
C.5.3.2	Office Building Rental (Regional)	months	12	24	36	48	48	168	80,000	0.960	1.920	2.880	3.840	3.840	13.440
C.5.3.3	Telephone and utilities	months	12	24	36	48	48	168	30,000	0.360	0.720	1.080	1.440	1.440	5.040
C.5.3.4	Office Supplies/	months	12	24	36	48	48	168	10,000	0.120	0.240	0.360	0.480	0.480	1.680
C.5.3.5	Brouchures/ Printing & Publications	Lump Sum	-	-	-	-	-	-	Lump Sum	-	0.200	0.200	0.300	0.300	1.000
C.5.3.6	Repair and Maintenance of Vehicles	V. months	-	48	72	96	120	336	10,000	-	0.480	0.720	0.960	1.200	3.360
C.5.3.7	POL for Vehicle and Generator	V. months	12	24	36	48	48	168	50,000	0.600	1.200	1.800	2.400	2.400	8.400
C.5.3.8	Equipment Maintenance	Lump Sum	-	-	-	-	-	-	Lump Sum	0.240	0.480	0.720	0.960	0.960	3.360
C.5.3.9	Daily Allowance (Perdiem)	Lump Sum	-	-	-	-	-	-	Lump Sum	0.800	1.600	2.400	3.200	3.200	11.200
	Sub Total									4.040	8.760	13.040	17.420	17.660	60.920
	Sub Total (Livestock PIUs)									10.424	21.362	28.931	36.633	33.847	131.198
	Total (Livestock PMU+PIUs)									56.772	46.320	54.755	61.779	59.100	278.726
C.6	Communication and Dissemination														
C.6.1	Communications materials/products	Lump sum	-	-	-	-	-	-	Lump Sum	12,000	-	-	-	-	12,000
C.6.2	Communications Consultants	Lump sum	-	-	-	-	-	-	Lump Sum	-	1,500	1,500	1,500	1,500	6,000
C.6.3	Dissemination events (media campaigns)	Lump sum	-	-	-	-	-	-	Lump Sum	1,000	1,000	1,000	1,000	1,000	5,000
C.6.4	Communication Van	Nos	-	1	-	-	-	1	8,900,000	-	8,900	-	-	-	8,900
C.6.5	Female Media Coordinator (As per need)	Lump sum	-	-	-	-	-	-	Lump Sum	3,600	-	-	-	-	3,600
C.6.6	Media Attendant (B-16)	Person Months	-	12	12	12	12	48	30,000	-	0.360	0.360	0.360	0.360	1,440
C.6.7	Driver for media Van (B-5)	Person Months	-	12	12	12	12	48	10,000	-	0.120	0.120	0.120	0.120	0,480
C.6.7	Helper for media Van (B-5)	Person Months	-	12	12	12	12	48	10,000	-	0.120	0.120	0.120	0.120	0,480
C.6.8	Media Formation/Script and Allied Costs	Lump sum	-	-	-	-	-	-	Lump Sum	-	0.500	0.500	0.500	0.500	2,000
C.6.9	POL of Communication Van	V. months	-	12	12	12	12	48	30,000	-	0.360	0.360	0.360	0.360	1,440
	Sub Total (Communication & Dissemination)									16.600	12.860	3.960	3.960	3.960	41.340
	Base Costs (Component C)									73.372	59.180	58.715	65.739	63.060	320.066
	Third Part Monitoring (0.5%)									0.367	0.296	0.294	0.329	0.315	1.600
	Physical Contingencies (1%)									0.734	0.592	0.587	0.657	0.631	3.201
	Total Cost									74.473	60.068	59.596	66.725	64.006	324.867

*Till appointment of full time Staff, Project allowance will be paid from the provision of salary component

**Two districts per years covering 8 district in 4 -years

IMPLEMENTATION SCHEDULE.

Sr.#	Activities	Year-1				Year-2				Year-3				Year-4				Year-5			
		1st Qt	2nd Qt	3rd Qt	4th Qt	1st Qt	2nd Qt	3rd Qt	4th Qt	1st Qt	2nd Qt	3rd Qt	4th Qt	1st Qt	2nd Qt	3rd Qt	4th Qt	1st Qt	2nd Qt	3rd Qt	4th Qt
1	Preparation of PC-I	x																			
2	Establishment of PMU	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3	Establishment of PCU	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4	Establishment of PIU		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5	Capacity Building and Institutional Development		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
6	Investments for Agricultural Growth			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
7	Project Management and Monitoring and Evaluation			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
8	Dairy Value Chain			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

**Sindh Agriculture Growth Program
Capacity Building and Institutional
Development**

Quarterly Activity Plan

A

Sr.	Description	Year-1				Year-2				Year-3				Year-4				Year-5			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
A.1	Capacity Building of Farmers and Producers																				
A.1.1	Stakeholder workshops in district	-	-	<input type="checkbox"/>	-	-	-	<input type="checkbox"/>	-	-	-	<input type="checkbox"/>	-	-	-	<input type="checkbox"/>	-	-	-	<input type="checkbox"/>	-
A.1.2	Exposure Tours of Growers/Farmers (national)	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	-	-	<input type="checkbox"/>	<input type="checkbox"/>	-	-	<input type="checkbox"/>	<input type="checkbox"/>	-	-	-	-	-
A.1.3	Exposure Tours of Growers/Farmers (international)	-	-	-	-	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	-	-	-	-	-	-	-
A.1.4	Exposure Tours of Officials (international)	-	-	-	-	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	-	-	-	-	-	-	-
A.1.5	Technical and Advisory Services (Need Basis)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	-	-	-
A.1.7	Demonstration of Exotic Varieties of Targeted Crops	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	-	-	-
A.2	Training and Capacity Building of Officials and Growers	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A.3	Publicity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A.4	Procurement of Goods																				
A.4.1	Office Equipment, Furniture & Fixture	-	<input type="checkbox"/>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A.4.2	Vehicles	-	<input type="checkbox"/>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A.5	Preparation of Investment Pipeline																				
A.5.1	Future Crop Investment & Value Chain Studies	-	-	-	<input type="checkbox"/>	-	-	-	-	<input type="checkbox"/>	-	-	-	<input type="checkbox"/>	-	-	-	-	-	-	-
A.5.2	Agribusiness Consultants	-	-	-	<input type="checkbox"/>	-	-	-	-	<input type="checkbox"/>	-	-	-	<input type="checkbox"/>	-	-	-	-	-	-	-
A.5.3	Competitive Agricultural Research Fund	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A.5.4	Preparation of Sindh Agriculture Development Strategy	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A.6	Incremental Operating Costs																				
A.6.1	Appointment of Incremental Staff	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A.7	infrastructure Modernization /Rehabilitation	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	-	-	-

B Investment for Agricultural Growth																					
Sr.	Description	Year-1				Year-2				Year-3				Year-4				Year-5			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
I Investment for Agricultural Growth																					
B.1 Horticulture Value Chains Date Crop																					
B.1.1	Estab. High Density Orchards (70% project, 30% farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.2	Solar dryer (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.3	Hand Carts (capacity 200kg) (70% project-30% farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.4	Plastic crates (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.5	Taupaulin sheets (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.6	Disease control kit (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.7	Moisture testing meter (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.8	Lead trainers for date farmers	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.9	Participatory technological development (PTD) Dates	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.10	Conductivity Meter (Potable) (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.11	Tree Pruners (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.12	Pollinators (gum) (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.13	Harvesting tools (belt, cutting equipment, pully, rope etc.) (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.14	Estab. Of Tissue Culture Laboratory (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Onion Crop																					
B.1.15	Moisture testing meter (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.16	Conductivity Meter (Potable) (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.17	Diggers (70% by project & 30% by farmers)	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.18	Curing and Storage facility (70% by project & 30% by farmers)	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.19	Mechanical Dryers (70% by project & 30% by farmers)	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.20	Lead trainers for Onion farmers	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.1.21	Graders (70% by project & 30% by farmers)	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sr.	Description	Year-1				Year-2				Year-3				Year-4				Year-5			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Chilies Crop	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.1.22	Procurement of Goods	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.1.23	Cover sheet (70% by project & 30% by farmers)	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.1.24	Conductivity Meter (Potable) (70% by project & 30% by farmers)	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.1.25	Moisture testing meter (70% by project & 30% by farmers)	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.1.26	Mechanical Dryers (5 ton per day) (70% by project & 30% by farmers)	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.1.27	Water Storage Tanks (70% by project & 30% by farmers)	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	-	-	-	-
B.1.28	Dustal Cleaner (50% by project, 25% by farmers and 25% by processor)	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.1.29	Color soughter (50% by project, 25% by farmers and 25% by processor)	-	-	☐	☐	☐	☐	☐	☐	-	-	-	-	-	-	-	-	-	-	-	-
B.1.30	Lead Trainers for Chilli farmers	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.2	Chilies Research Laboratory at Kunri																				
B.2.1	Procurement of Goods (Elisa kits, Chemicals & Glass wares)	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.2.2	Appointment of Incremental Staff (for Laboratory)	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.3	Demand Driven investment Fund (for infrastructure and technology innovation)	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.4	Post harvest loss management (rice crop)																				
B.4.1	Participatory technological development (PTD) rice	-	-	-	-	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.4.2	Extension facilitators for rice	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.4.3	Thresher (70% by project and 30% by farmers)	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.4.4	Conductivity Meter	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.4.5	Soil & Moisture testing kit	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.4.6	Flat bed driers	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.5	Mobile Call Center and Consultant Panel	-	-	-	-	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

C. Project Management, Monitoring and Evaluation

Sr.	Description	Year-1				Year-2				Year-3				Year-4				Year-5				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
C.I	PMU Agriculture																					
C.1.1	Appointment of Incremental Staff																					
C.1.2	Goods																					
C.1.21	Office Equipment	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.1.22	Furniture & Fixture	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.1.23	Vehicles	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.2	PIUs Agriculture at District levels (4 Nos)																					
C.2.1	Appointment of incremental staff	-																				
C.2.2	Goods																					
C.2.21	Office Equipments (4-PIUs-Agriculture)	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.2.22	Furniture & Fixture	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.2.23	Vehicles for 4 PIUs (Agriculture)	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-3	Project Coordination Unit																					
C.3.1	Appointment of incremental staff																					
C.3.2	Procurement of Goods																					
C.3.21	Office Equipment	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.3.22	Furniture & Fixture	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.3.23	Vehicle for PCU (Agriculture)	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.4	Others																					
C.4.1	environment and social management faramwork (ESMF) implementation	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.4.2	Social assessment (overall project)	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.4.3	Third Party Monitoring Agency (Overall project)	-	-	-	-																	
C.4.5	Impact Evaluation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.4.6	Retroactive Financing					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Environmental and Social Safeguards

Activities proposed to be financed through project investments are unlikely to have significant adverse environmental and social impacts. The project would essentially provide improvement extension services to farmers in order to improve productivity and market access for selected crops along a value chain approach. The project would also finance some on-farm activities to directly increase crop production through demonstrations of better farm practices to education farmers about sustainable farming practices including integrated pest and nutrient management.

Nonetheless, the project includes a number of activities which are small and some of these could have reversible impacts, both the social and environmental. Therefore, there is a need to identify and assess potential impacts which would help plan measures to avoid them through good project design and where they become inevitable there is a need to develop measures to mitigate them, both during project planning and implementation. Similarly, there is also a need to enhance the positive impacts and social and environmental benefits of the proposed activities of the project could be multiplied. This could be achieved by establishing procedures for enhancement measures. Considering this, the project aims at mainstreaming environmental and social concerns in the project planning and implementation.

In this context, an overarching Environmental and Social Management Framework (ESMF) is being prepared as a decision-making tool to ensure that project design and implementation is socially responsive and environmentally sound.

The potential negative environmental impacts of the project include, but not limited to: (i) generation of vegetative solid wastes; (ii) increased use of pesticides and other agro-chemicals; and (iii) drainage and hygiene, particularly, in livestock markets. Similarly, the potential negative social impacts identified include lack of participation particularly from landless and women farmer groups resulting in differential access to project benefits. While at individual sites, these may be small, cumulative impacts when seen as aggregates could be moderate to high and, therefore, requires appropriate mitigation and management measures to contain them.

Safeguard Policies Triggered

This is a category B project. The safeguard policies on Environmental Assessment (OP/BP/GP 4.01) and Pest Management (OP 4.09) are triggered.

Environmental Assessment: This is applicable given the project's focus on upgrading agricultural practices for selected crops with the potential to include additional crops in future. While issues related to solid waste generation are expected, potential adverse environmental impacts on natural resource use and management are expected to be limited.

Pest Management: While the project is not financing any direct procurement of pesticides and other agro-chemicals, it is likely that with better marketing opportunities in close proximity, farmers could tend to increase land-based productivity through application of fertilizers, pesticides and other agro-chemicals for increasing crop yields. Therefore, Pest Management is triggered. The ESMF includes appropriate measures to mitigate adverse impacts, including a strategy on Integrated Pest Management.

Stakeholders Consultation

As part of the development of the ESMF consultations are being completed with key stakeholders. Additionally, as part of the investments design for agricultural crops, detailed consultations with the communities, farmers and producers groups were held. Feedback from these consultations is used in preparing ESMF. The process of stakeholders' consultations will continue during project implementation in preparing and implementing the actual investment level mitigation plans, where ever required. Purpose of such consultations would be to ensure increased participation of the stakeholders in the planning and implementation of the project activities at the sub-project level.

Pest, Soil and Nutrient Management Strategy

Use of IPM may be become imperative as continuous and indiscriminate use of agricultural chemicals leads to development of resistance in target insects, resurgence of pests, destruction of useful insects, pesticide residues, secondary outbreak of pests, health hazards and environmental pollution. The project focus on increasing crop productivity and diversification warrants a well thought out strategy to address pest, soil and nutrient management issues. The ESMF will include a framework on IPM as well as to manage soil and soil nutrients.

Monitoring of Environmental and Social Management Framework

The project will have both internal and external monitoring mechanisms on social and environmental issues. Internal monitoring will be done both at the PMU and PIU levels. Besides, an external agency will be engaged to monitor and evaluate the project activities will also cover social and environmental issues related to the project. Monitoring indicators have been identified in the ESMF help ensure implementation of environmental and social safeguard elements. These indicators would be further improved during project implementation.

Annexure-VII

Financial Management and Disbursement Arrangements

A review of financial management arrangements in the Research and Extension Wings of the Sindh Agriculture Department was carried out. Main findings are contained in the following paragraphs. The two Departments would implement their respective components.

FM Risk Assessment

The country risk level concerning FM is Substantial. The initial project level risk, before mitigation, is assessed as Substantial. The project FM risk level is expected to reduce to moderate after the mitigation actions (recruitment of key staff and fully functional internal audit) have been undertaken.

Risk Analysis

Risk	Initial FM Risk	Risk Mitigation	FM Risk After Mitigation	Condition for Negotiations/Disbursement
Inherent Risk				
Country level	Substantial		Substantial	
Control Risk				
Budgeting	Moderate		Moderate	
Accounting	Substantial	Induction of key financial management staff	Moderate	Condition for Negotiations
Internal control	Substantial	Setting up internal audit arrangements	Moderate	Condition for Disbursement
Funds flow	Moderate		Moderate	
Financial reporting	Substantial	Induction of key financial management staff	Moderate	
Auditing	Moderate		Moderate	
Detection Risk	Substantial	Ensuring internal audit at least once a year	Moderate	
Residual FM Risk Rating	Substantial		Moderate	

Economic and Financial Analysis

Introduction

Sindh has about 80,000 farmers planting 60,300 ha under chili production which results in about 167,700 tons, an average yield of 2.8 tons per ha. Production is sold to both domestic and export markets. Main problems relate to the use of poor quality seeds, cultural practices and diseases (mainly virus, collar rot and phytophthora root rot). Recently exports to the U.S.A were suspended because the detection of the Aflatoxin virus in the product. Onions occupy about 52,000 farmers and XX ha in Sindh with average yields of about 12 to 14 tons/ha. Farm gate prices vary strongly according to quality and along seasons as inadequate handling practices and storing facilities prevail. Rice is grown in about 600,000 ha in Sindh representing 28 percent of the rice area in the country. Average yield is only 3.4 tons/ha which could be increased with the adjustment of simple production practices. Harvesting and post-harvesting handling need also improvement to reduce losses, enhance quality and obtain higher prices. Average production of dates in Sindh is about 265,300 tons annually from 32,600 ha and a yield of 8.15 tons/ha. After harvest, dates are cured in the sun on straw mats in open grounds alongside roads which result in contamination with molds and bacteria. Packing is usually done under unhygienic conditions.

The SAGP's Crop Growth Sub-Project will comprise four components involving an investment of US\$87.1 million: (a) Extension (US\$23.7 million); (b) Productive Investments (US\$51 million); (c) Adaptive Research (US\$2.2 million), and; (d) Management, Supervision and Technical Assistance (US\$10.2 million). Activities will be targeted at improving production and post-harvesting practices of selected commodities. The project would support adoption of good agricultural practices, such as varietal suitability, production technologies, post-harvest handling and marketing requirements. In parallel, investments in the horticulture and rice value chains will include key items related to support post harvesting aspects by financing the introduction of plastic crates, solar dryers and tarpaulin drying sheets for dates; demonstration curing sheds for onions; drying mats and cover sheets for chillis; and threshers and flat-bed driers for rice. These interventions would lead to higher crop yields and prices for their produce, as well as to reduce levels of current post-harvest losses.

Financial Analysis

Crop budgets were prepared to show the production costs and revenues expected from the project targeted cropping activities in both scenarios: *with* and *without* the project interventions. Data for recommended production technology and inputs usage and, for attainable crop yields was collected from different sources including the Directorate of Agriculture-Extension Wing as well as from the Directorate of Agriculture-Research Wing. Data from growers was also collected to look into their general current practice and for developing typical crop model budgets. From the reported attainable yield increases it was assumed that on average only 50 percent of the expected increase would be achieved after the project. Tables 1 to 4 in the Appendix present the detailed crop budgets, the yields and inputs assumptions, as well as the expected incremental financial margins expected under the existing conditions and after the

project. The assumed yields, inputs and labor costs, and estimated margins are summarized in the following Table 1.

Table 1. Main Indicators and Expected Results for Main Crops (per ha)

Crop	Average Yields (tons/ha)		Gross Revenue (‘000 Rs)		Input & Labor Costs (‘000 Rs)		Net Income (‘000 Rs)	
	Without	With	Without	With	Without	With	Without	With
Red Chilies	2.6	3.27	466	589	95	142	373	447
Onions	12	20	144	240	75	122	69	118
Dates	8.15	9.0	489	540	78	92	411	448
Rice	3.3	4.5	89	121	63	78	26	43

Table 5 in the Appendix presents the crop budget for the plantation of improved varieties-high density dates trees (300 trees per ha), which is also going to be supported with an incentive equivalent to 70 percent of the cost of planting as net income per year at maturity is 50 percent higher than the traditional density of 185 trees per ha.

The crop activities typical of each of the project areas will be used at project appraisal to analyze representative **farm models** for estimating the financial impact of project interventions on beneficiaries’ average income. Production and income increases would result from the use of improved crop production technologies together with the enhanced post-harvest handling and marketing practices. For each of the main project crops selected, typical farm model– including representative cropping pattern and livestock activities - will be prepared to estimate the financial project impact at the beneficiaries’ level. Preliminary estimates are shown in Table 2.

Table 2 Project Financial Impact at the level of Typical Farms in the Sindh Area

Farm Model Indicators		FM 1: Chili/..	FM 2: Onions ..	FM 3: Dates ..	FM 4: Rice..
Farm gross income (in ‘000Rs)	before	450	200	1,120	210
	after	720	300	1,250	250
Farm net income (in ‘000Rs)	before	280	80	840	70
	after	400	140	980	84

The estimated financial indicators show that the **beneficiaries’ net farm revenues would increase by about 15 to 75 percent** as production technologies are adopted for the selected crops, and value for products is increased as the technical support and the productive investments allow for higher productivity levels and the quality enhancement for their products. *It can be safely concluded that the proposed project investments are feasible from the financial perspective provided that at least 50 percent of the target farmers adopt the proposed practices.*

Economic Analysis

The project would promote adoption of technologies and post-harvesting improvements together with providing agricultural implements. Few adjustments were made since market prices in Pakistan express adequately the real value of the goods and services. A Standard Conversion Factor (SCF) of 0.9 and specific CF for rice, fertilizers and labor were used for the economic analysis. Based on 2012 export/import parity price estimations, the CF for rice is 0.83, while for urea, di-ammonium phosphate (DAP) and simple superphosphate (SSP) the CFs are 1.44, 1.22 and 1.11 respectively. For rural labor costs a CF of 0.75 was considered.

Table 3 shows the proposed expansion of the extension activities and expected benefits per crop to the targeted beneficiaries, the farmers assumed to adopt the recommended agricultural and post-harvesting good practices, and the resulting improved area for each of the four targeted crops involved.

Table 3 Estimated areas and farmers to be benefited by the project interventions

	Crop				Total
	Chili	Onion	Rice	Dates	
Farmer groups	2,068	2,224	2,000	532	6,824
No. of farmers per group	15	15	20	15	16.5
Targeted farmers	31,020	33,360	40,000	7,980	112,360
Expected rate of adoption	50%	50%	50%	50%	50%
Farmers adopting project practices	15,510	16,680	20,000	3,990	56,180
Cropped area per farm (in ha)	0.75	1.0	1.36	2.71	1.21
Area adopting improvements (ha)	11,632	16,680	27,200	10,813	66,325

Results for each of the four crops and for the crop growth subproject are presented in Tables 6 to 10 in the Appendix and summarized in the following Table 4.

Table 4 Expected Project Economic Results (in Rs million)

	Investments	Incremental Net Value of Production	ERR	NPV
Chili	3,100	849	18.2%	1,013
Onion	2,084	752	28.2%	1,749
Rice	1,603	294	14.2%	153
Dates	1,956	871	26.5%	1,742
Overall Project	8,743	2,766	22%	4,657

The proposed SAGP's Crop Growth subproject would increase the annual net economic benefit from the project beneficiaries by about 27.5 percent, from Rs9.8 billion to Rs 12.5 billion. The Rs 8.7 billion (US87 million) investment required to develop the proposed subproject would have an overall Economic Rate of Return (ERR) estimated at 22 percent and a

Net Present Value (NPV) of Rs4.6billion (US\$46 million equivalent) with 12 percent used as discount rate.

Sensitivity Analysis

A sensitivity analysis to the main risks identified as significant will be conducted at project appraisal. The analysis will include: (i) a lower number of farmers adopting the recommended production and post-harvest technologies and practices; (ii) an increase in project's implementation costs; and (iii) a general reduction of the prices of the products involved.

Red Chili Crop Model

Appendix 1 Table 1

FINANCIAL BUDGET (In Rs Per ha)	April -- March				
	Existing	New Technology			
	Technology 1 to 20	1	2	3	4 to 20
Revenue	468,000	468,000	495,000	561,600	588,600
Input costs					
Red Chili Seed	3,010	3,010	3,290	4,060	4,340
Urea	13,475	13,475	14,823	17,903	19,250
DAP	6,375	6,375	6,936	8,364	8,925
Sulphate of Potash	7,750	7,750	8,432	10,168	10,850
Farm Yard Manure	2,500	2,500	2,720	3,280	3,500
Pesticides	11,850	11,850	13,328	17,022	18,500
Herbicides	2,500	2,500	2,722	3,278	3,500
Tractor	9,000	9,000	9,960	12,240	13,200
Irrigation Fees	10,000	10,000	10,000	10,000	10,000
Dryer Mats & Cover Sheets	-	-	3,472	12,028	15,500
Sub-total Input costs	66,460	66,460	75,683	98,343	107,565
Income (Before Labor Costs)	401,540	401,540	419,318	463,258	481,035
Sub-total Labor costs	28,800	28,800	29,970	32,730	33,900
Income (After Labor Costs)	372,740	372,740	389,348	430,528	447,135

YIELDS AND INPUTS

(Per ha)

	Unit	Existing				
		Technology 1 to 20	1	2	3	4 to 20
Yields	MT	2.6	2.6	2.75	3.12	3.27
Operating						
Inputs						
Red Chili Seed	kg	8.6	8.6	9.4	11.6	12.4
Urea	bag	7	7	7.7	9.3	10
DAP	bag	2.5	2.5	2.72	3.28	3.5
Sulphate of Potash	bag	2.5	2.5	2.72	3.28	3.5
Farm Yard Manure	MT	2.5	2.5	2.72	3.28	3.5
Pesticides	lumpsum	11,850	11,850	13,328	17,022	18,500
Herbicides	lumpsum	2,500	2,500	2,722	3,278	3,500
Tractor	hour	15	15	16.6	20.4	22
Irrigation Fees	ha	10,000	10,000	10,000	10,000	10,000
Dryer Mats & Cover Sheets	farmer	-	-	0.056	0.194	0.25
Labor						
Flowing & Ridges	person/day	20	20	20	20	20
Crop Maintenance	person/day	36	36	38.1	43.2	45
Harvesting	person/day	40	40	62.7	69.3	72

Onions Crop Model

Appendix 1 Table 2

FINANCIAL BUDGET (InRs Per ha)	April -- March				
	Existing	New Technology			
	Technology 1 to 20	1	2	3	4 to 20
Revenue	144,000	144,000	165,600	218,400	240,000
Input costs					
Red Chili Seed	1,750	1,750	1,827	2,023	2,100
Urea	9,625	9,625	11,743	17,133	19,250
DAP	6,375	6,375	6,936	8,364	8,925
Sulphate of Potash	-	-	1,860	5,890	7,750
Farm Yard Manure	2,500	2,500	2,830	3,670	4,000
Pesticides	12,000	12,000	13,778	18,222	20,000
Herbicides	2,500	2,500	2,944	4,056	4,500
Fungicides	3,200	3,200	4,711	8,489	10,000
Irrigation Fees	10,000	10,000	10,000	10,000	10,000
Tractor	9,000	9,000	9,960	12,240	13,200
Sub-total Input costs	56,950	56,950	66,589	90,087	99,725
Income (Before Labor Costs)	87,050	87,050	99,012	128,314	140,275
Sub-total Labor costs	18,000	18,000	18,840	21,360	22,200
Income (After Labor Costs)	69,050	69,050	80,172	106,954	118,075

YIELDS AND INPUTS

(Per ha)

	Unit	Existing				
		Technology 1 to 20	1	2	3	4 to 20
Yields	MT	12	12	13.8	18.2	20
Operating						
Inputs						
Red Chili Seed	kg	5	5	5.22	5.78	6
Urea	bag	5	5	6.1	8.9	10
DAP	bag	2.5	2.5	2.72	3.28	3.5
Sulphate of Potash	bag	-	-	0.6	1.9	2.5
Farm Yard Manure	MT	2.5	2.5	2.83	3.67	4
Pesticides	lumpsum	12,000	12,000	13,778	18,222	20,000
Herbicides	lumpsum	2,500	2,500	2,944	4,056	4,500
Fungicides	lumpsum	3,200	3,200	4,711	8,489	10,000
Irrigation Fees	ha	10,000	10,000	10,000	10,000	10,000
Tractor	hour	15	15	16.6	20.4	22
Labor						
Flowing & Ridges	person/day	10	10	10	10	10
Crop Maintenance	person/day	30	30	32	38	40
Harvesting	person/day	20	20	20.8	23.2	24

Dates (Existing) Crop Model

Appendix 1 Table 3

FINANCIAL BUDGET (In Rs Per ha)	April -- March				
	Existing	New Technology			
	Technology 1 to 20	1	2	3	4 to 20
Revenue	489,000	489,000	500,400	528,600	540,000
Input costs					
Urea	15,400	15,400	16,170	18,480	19,250
DAP	12,750	12,750	13,311	14,739	15,300
Simple Super Phosphate	9,300	9,300	9,982	11,718	12,400
Farm Yard Manure	6,000	6,000	6,220	6,780	7,000
Pesticides	3,000	3,000	3,222	3,778	4,000
Herbicides	1,500	1,500	1,611	1,889	2,000
Packing for Dates	8,160	8,160	8,360	8,800	9,000
Sub-total Input costs	56,110	56,110	58,876	66,184	68,950
Income (Before Labor Costs)	432,890	432,890	441,524	462,416	471,050
Sub-total Labor costs	21,600	21,600	22,020	22,980	23,400
Income (After Labor Costs)	411,290	411,290	419,504	439,436	447,650

YIELDS AND INPUTS

(Per ha)

	Unit	Existing				
		Technology 1 to 20	1	2	3	4 to 20
Yields	MT	8.15	8.15	8.34	8.81	9
Operating						
Inputs						
Urea	bag	8	8	8.4	9.6	10
DAP	bag	5	5	5.22	5.78	6
Simple Super Phosphate	bag	3	3	3.22	3.78	4
Farm Yard Manure	MT	6	6	6.22	6.78	7
Pesticides	lumpsum	3,000	3,000	3,222	3,778	4,000
Herbicides	lumpsum	1,500	1,500	1,611	1,889	2,000
Packing for Dates	20 kg bag	204	204	209	220	225
Labor						
Crop Maintenance	person/day	24	24	24	24	24
Harvesting	person/day	52	52	54	56	58

Rice Crop Model

Appendix 1 Table 4

FINANCIAL BUDGET (In Rs Per ha)	April -- March				
	Existing	New Technology			
	Technology 1 to 20	1	2	3	4 to 20
Revenue	89,100	89,100	96,390	114,210	121,500
Input costs					
Rice (Paddy) Seed	350	350	364	406	420
Urea	9,625	9,625	10,395	12,705	13,475
DAP	6,375	6,375	6,656	7,370	7,650
Sulphate of Potash	-	-	682	2,418	3,100
Farm Yard Manure	2,500	2,500	2,720	3,280	3,500
Pesticides	7,400	7,400	7,667	8,333	8,600
Herbicides	2,500	2,500	2,656	3,044	3,200
Irrigation Fees	10,000	10,000	10,000	10,000	10,000
Tractor	12,000	12,000	12,240	12,960	13,200
Sub-total Input costs	50,750	50,750	53,380	60,516	63,145
Income (Before Labor Costs)	38,350	38,350	43,011	53,695	58,355
Sub-total Labor costs	12,600	12,600	13,080	14,520	15,000
Income (After Labor Costs)	25,750	25,750	29,931	39,175	43,355

YIELDS AND INPUTS

(Per ha)

	Unit	Existing				
		Technology 1 to 20	1	2	3	4 to 20
Yields	MT	3.3	3.3	3.57	4.23	4.5
Operating						
Inputs						
Rice (Paddy) Seed	kg	10	10	10.4	11.6	12
Urea	bag	5	5	5.4	6.6	7
DAP	bag	2.5	2.5	2.61	2.89	3
Sulphate of Potash	bag	-	-	0.22	0.78	1
Farm Yard Manure	MT	2.5	2.5	2.72	3.28	3.5
Pesticides	lumpsum	7,400	7,400	7,667	8,333	8,600
Herbicides	lumpsum	2,500	2,500	2,656	3,044	3,200
Irrigation Fees	ha	10,000	10,000	10,000	10,000	10,000
Tractor	hour	20	20	20.4	21.6	22
Labor						
Flowing & Ridges	person/day	10	10	10	10	10
Crop Maintenance	person/day	12	12	12.8	15.2	16
Harvesting	person/day	20	20	20.8	23.2	24

Chili Development Subproject Model
ECONOMIC BUDGET (AGGREGATED)
(In Rs Million)

Appendix 1 Table 6

	Without Project		With Project						
	1 to 20	1	2	3	4	5	6	7	9 to 20
Main Production									
Red Chili (Value)	5,476	5,476	5,476	5,476	5,555	5,828	6,181	6,534	6,887
Red Chili (Volume MT)	30,420	30,420	30,420	30,420	30,858.75	32,379.75	34,339.5	36,299.25	38,259
Production Cost									
Investment									
Purchased Inputs									
Extension Expenses (1st year)	-	-	66	66	66	66	-	-	-
Extension Expenses (2nd year - PTD)	-	-	-	23	23	23	23	-	-
Dryer Mats & Cover Sheets	-	-	482	482	482	482	-	-	-
Other Support Investments	-	-	5	28	28	28	-	-	-
Project Management (Horticulture Cor	-	50	50	50	50	50	50	-	-
Facilitating Partner	-	13	13	13	13	13	13	-	-
Sub-Total Purchased Inputs	-	63	616	662	662	662	86	-	-
Labor									
Lead Farmers	-	-	15	20	20	20	5	-	-
Facilitators	-	-	50	67	67	67	17	-	-
Sub-Total Hired Labor	-	-	65	87	87	87	23	-	-
Sub-total Investment Costs	-	63	680	750	750	750	108	-	-
Operating									
Sub-Total Purchased Inputs	863	863	863	863	892	993	1,122	1,251	1,381
Sub-total Operating Costs	1,116	1,116	1,116	1,116	1,148	1,257	1,397	1,538	1,678
Sub-Total Production Cost	1,116	1,179	1,796	1,866	1,897	2,006	1,505	1,538	1,678
OUTFLOWS	1,116	1,179	1,796	1,866	1,897	2,006	1,505	1,538	1,678
Cash Flow	4,360	4,297	3,679	3,610	3,657	3,822	4,676	4,996	5,209

IRR = 18.2%, NPV = 1,013.29

Onion Development Subproject Model

Appendix 1 Table 7

ECONOMIC BUDGET (AGGREGATED)
(In Rs Million)

	Without Project		With Project						
	1 to 20	1	2	3	4	5	6	7	8 to 20
Main Production									
Onion (Nasarpuri) Value	2,390	2,390	2,390	2,480	2,789	3,187	3,586	3,894	3,984
Onion (Nasarpuri) Volume '000 MT	199.2	199.2	199.2	206.7	232.4	265.6	298.8	324.5	332.0
Investment									
Purchased Inputs									
Extension Expenses (1st year)	-	-	55	55	55	55	-	-	-
Extension Expenses (2nd year - PTD)	-	-	-	19	19	19	19	-	-
Other Support Investments	-	-	280	280	280	280	-	-	-
Project Management (Horticulture Cor	-	50	50	50	50	50	50	-	-
Facilitating Partner	-	13	13	13	13	13	13	-	-
Sub-Total Purchased Inputs	-	63	398	417	417	417	82	-	-
Labor									
Lead Farmers	-	-	12	17	17	17	4	-	-
Facilitators	-	-	41	56	56	56	14	-	-
Sub-Total Hired Labor	-	-	54	73	73	73	19	-	-
Sub-total Investment Costs	-	63	452	490	490	490	101	-	-
Operating									
Sub-Total Purchased Inputs	1,039	1,039	1,039	1,083	1,236	1,434	1,631	1,784	1,829
Sub-total Operating Costs	1,263	1,263	1,263	1,310	1,474	1,684	1,895	2,058	2,105
Sub-Total Production Cost	1,263	1,326	1,715	1,800	1,963	2,174	1,995	2,058	2,105
OUTFLOWS	1,263	1,326	1,715	1,800	1,963	2,174	1,995	2,058	2,105
Cash Flow	1,127	1,065	676	680	826	1,013	1,590	1,836	1,879

IRR = 28.2%, NPV = 1,748.99

Rice Development Subproject Model
ECONOMIC BUDGET (AGGREGATED)
(In Rs Million)

Appendix 1 Table 8

	Without Project	With Project							
	1 to 20	1	2	3	4	5	6	7	8 to 20
Main Production									
Rice	2,026	2,026	2,026	2,068	2,211	2,395	2,579	2,722	2,763
Production Cost									
Investment									
Purchased Inputs									
Extension Expenses (1st year)	-	-	50	50	50	50	-	-	-
Extension Expenses (2nd year - PTD)	-	-	-	18	18	18	18	-	-
Other Support Investments	-	-	174	174	174	174	-	-	-
Project Management (Horticulture Compone	-	50	50	50	50	50	50	-	-
Facilitating Partner	-	13	13	13	13	13	13	-	-
Sub-Total Purchased Inputs	-	63	286	304	304	304	80	-	-
Labor									
Lead Farmers	-	-	11	15	15	15	4	-	-
Facilitators	-	-	38	51	51	51	13	-	-
Sub-Total Hired Labor	-	-	49	66	66	66	17	-	-
Sub-total Investment Costs	-	63	335	370	370	370	97	-	-
Operating									
Sub-Total Purchased Inputs	1,545	1,545	1,545	1,566	1,643	1,742	1,840	1,918	1,939
Labor	259	259	259	261	271	284	296	306	308
Sub-total Operating Costs	1,804	1,804	1,804	1,827	1,915	2,025	2,136	2,224	2,247
Sub-Total Production Cost	1,804	1,866	2,139	2,197	2,284	2,395	2,233	2,224	2,247
OUTFLOWS	1,804	1,866	2,139	2,197	2,284	2,395	2,233	2,224	2,247
Cash Flow	222	160	-113	-129	-74	-0	346	498	516

IRR = 14.2%, NPV = 153.46

Dates Development Subproject Model
ECONOMIC BUDGET (AGGREGATED)
(In Rs Million)

Appendix 1 Table 9

	Without Project	With Project							
	1 to 20	1	2	3	4	5	6	7	11 to 20
Main Production									
Dates (Value)	4,890	4,890	4,890	4,919	5,018	5,205	5,438	5,664	6,030
Dates (Volume '000 MT)	81.5	81.5	81.5	82.0	83.6	86.7	90.6	94.4	100.5
Production Cost									
Investment									
Purchased Inputs									
Machinery and Irrigation Services	-	-	2	3	5	5	3	2	-
Seeds and Seedlings	-	-	14	15	15	15	1	-	-
Fertilizers	-	-	17	30	44	44	26	14	-
Herbicides	-	-	-	2	3	3	3	2	-
Extension Expenses (1st year)	-	-	14	14	14	14	-	-	-
Extension Expenses (2nd year - PTD)	-	-	-	5	5	5	5	-	-
Other Support Investments	-	-	288	288	288	288	-	-	-
Project Management (Horticulture Compone	-	50	50	50	50	50	50	-	-
Facilitating Partner	-	13	13	13	13	13	13	-	-
Sub-Total Purchased Inputs	-	63	399	421	438	438	102	18	-
Labor									
Labor	-	-	1	1	1	1	1	0	-
Lead Farmers	-	-	3	4	4	4	1	-	-
Facilitators	-	-	10	14	14	14	4	-	-
Sub-Total Hired Labor	-	-	14	19	19	19	5	0	-
Sub-total Investment Costs	-	63	413	440	458	458	108	18	-
Sub-total Operating Costs	829	829	829	838	871	933	997	1,054	1,098
Sub-Total Production Cost	829	892	1,242	1,278	1,329	1,390	1,105	1,072	1,098
OUTFLOWS	829	892	1,242	1,278	1,329	1,390	1,105	1,072	1,098
Cash Flow	4,061	3,998	3,648	3,641	3,689	3,815	4,333	4,592	4,932

IRR = 26.5%, NPV = 1,741.53

Project Summary
ECONOMIC BUDGET (AGGREGATED)
(In Rs Million)

Appendix 1 Table 10

	Without Project									
	1 to 20	1	2	3	4	5	6	7	8	11 to 20
Main Production										
Grains	2,026	2,026	2,026	2,068	2,211	2,395	2,579	2,722	2,763	2,763
Onion (Nasarpuri)	2,390	2,390	2,390	2,480	2,789	3,187	3,586	3,894	3,984	3,984
Red Chili (Local Sindh)	5,476	5,476	5,476	5,476	5,555	5,828	6,181	6,534	6,808	6,887
Dates	4,890	4,890	4,890	4,919	5,018	5,205	5,438	5,664	5,850	6,030
Sub-total Main Production	14,782	14,782	14,782	14,942	15,571	16,615	17,783	18,814	19,405	19,664
Production Cost										
Investment										
Purchased Inputs										
Machinery and Irrigation Services	-	-	2	3	5	5	3	2	-	-
Seeds and Seedlings	-	-	14	15	15	15	1	-	-	-
Fertilizers	-	-	17	30	44	44	26	14	-	-
Herbicides	-	-	-	2	3	3	3	2	-	-
Extension Expenses (1st year)	-	-	185	185	185	185	-	-	-	-
Extension Expenses (2nd year - PTD)	-	-	-	65	65	65	65	-	-	-
Dryer Mats & Cover Sheets	-	-	482	482	482	482	-	-	-	-
Other Support Investments	-	-	746	770	770	770	-	-	-	-
Project Management (Horticulture Compo	-	200	200	200	200	200	200	-	-	-
Facilitating Partner	-	50	50	50	50	50	50	-	-	-
Sub-Total Purchased Inputs	-	250	1,698	1,803	1,821	1,821	350	18	-	-
Labor										
Labor	-	-	1	1	1	1	1	0	-	-
Lead Farmers	-	-	42	56	56	56	15	-	-	-
Facilitators	-	-	139	188	188	188	49	-	-	-
Sub-Total Hired Labor	-	-	181	245	245	245	64	0	-	-
Sub-total Investment Costs	-	250	1,879	2,048	2,067	2,067	414	18	-	-
Operating										
Sub-Total Purchased Inputs	4,114	4,114	4,114	4,188	4,478	4,930	5,413	5,823	6,018	6,054
Labor	898	898	898	904	929	969	1,012	1,050	1,069	1,075
Sub-total Operating Costs	5,012	5,012	5,012	5,091	5,407	5,899	6,425	6,873	7,087	7,128
Sub-Total Production Cost	5,012	5,262	6,892	7,140	7,474	7,965	8,839	8,892	7,087	7,128
OUTFLOWS	5,012	5,262	6,892	7,140	7,474	7,965	8,839	8,892	7,087	7,128
Cash Flow	9,770	9,520	7,891	7,802	8,098	8,650	10,944	11,922	12,318	12,535

IRR = 22.0%, NPV = 4,657.27

Competitive Agricultural Research Development Fund

Project will not support the stereotype research but it will fund new innovative, production oriented research programs which will give quick results. For this purpose The project will finance a program of competitive agriculture research development fund, supporting demand oriented and result based research on agriculture crops. The program would also include strengthening and improvement of agriculture research & extension services in basic infrastructure and human resource development. The program will be managed by Department of Agriculture in collaboration with scientists, Agriculture University Tandojam and other collaborative institutions in Sindh as well as in Pakistan. Agriculture development strategy will also be framed for this purpose with the consultation of all stakeholders and approved by the project steering committee. The research proposals will be reviewed based on agreed criteria outlined in an operational manual. Most of the funded research programs would be required to be able to yield results within the lifetime of the project. After the approval from the Board/ Steering Committee funds will be released by the Project Director.

Following areas will be covered and funded

1. Genetic improved production technologies of fruit, vegetable & field crops.
2. Work on the value addition & food technology of horticulture crops.
3. Development of quality seed of field, horticulture/ vegetable crops.
4. Competitive Research Grant supporting result based research on crops.
5. To improve the efficiency and competitiveness of Sindh's Agriculture sector by promoting pro-poor rural development programs
6. Integrating different crop production practices to lessen the impact of environment change.
7. Establishment & rehabilitation of new & existing district soil & water testing laboratories.
8. Strengthening of Research Institutes through equipment, machineries and capacity building of scientists

Objectives

- The main objective is to provide funding to the competitive, field orientated, research projects/ proposals.
- To provide funds to the Scientist, have good Research ideas, and who will submits good sound, and field oriented research proposal.
- To provide opportunity for healthy competition in field of Agriculture Research for development of new technologies for enhancing Agricultural Productivity.
- Capacity building of scientists and strengthening of research institutes.

METHODOLGY, PROCEDURE AND REQUIREMENTS:

The applications will be invited from the scientists of the Universities, Organizations mentioned and Agriculture Research Institutes of Sindh, through publication of expression of interest, in Competitive Research activities. The Scientists will be offered to submit field oriented, sound research proposals.

Those Application and Research proposal will be technically discussed, and short listed by a Competitive Agricultural Research Technical Committee.

The short listed project proposal will be submitted to the Steering Committee for final decisions.

The successive proposal will be funded on the recommendation and final decision of the steering committee.

Terms and conditions:

- The received project proposal will be submitted to the Competitive Agricultural Research Technical Committee.
- The Committee would be technically discuss the proposals and short lists the projects.
- The short listed proposal will be submitted to the project Steering Committee for finalization.
- The successive project will be funded on the decision of the Steering Committee.
- The Project Director (P.D) of the project have to defend his proposal, if it necessary or as per decision of Steering Committee.
- The P.D of the successive project, will submit his complete project with Plan of work.
- The Steering Committee have right to propose suggestions for modification of the project.
- Finalized proposal will be funded through Competitive Agricultural Research Fund of World Bank Project.
- The P.D of the project will carry work as per approved plan of work.
- The Department / organization in which the scientist is working will sign a Guaranty for Work and physical Assets.
- The P.D of the project will remain responsible to submit the financial and physical / Technical progress every month.
- The P.D of the Project will be responsible to submit and present the financial and physical / Technical progress on the call of Committee.
- The P.D of the Project will be responsible to submit final findings of the research project, in the final year.
- The Research findings will be the property of Agriculture Department, Government of Sindh.
- All the physical Assets procured through this project will remain the property of Agriculture research Sindh.

COMPOSITION

Competitive Agricultural Research Technical Committee:

- | | |
|--|--------------------|
| 1. The Vice Chancellor, Sindh Agriculture University, | Chairman. |
| 2. Project Coordinator. | Member. |
| 3. Project Director, PMU, Agriculture. | Member. |
| 4. Project Director, PMU, Livestock and Fisheries. | Member. |
| 5. Director General, Agriculture Extension Sindh, | Member. |
| 6. Director General, Agriculture Engineering & Water Management Sindh, | Member. |
| 7. Director General, Livestock/Research Sindh, | Member. |
| 8. Director, Nuclear Institute of Agriculture, | Member. |
| 9. Chief Agriculture Planning & Development Department, GOS, | Member. |
| 10. President/Representative of Sindh Abadgar Board, | Member. |
| 11. President/Representative of Chamber of Agriculture Sindh, | Member. |
| 12. Representative of Chilies, Onion, Date Palm & Rice Growers (for each crop) | Member. |
| 13. President/Representative of Red Chilies Grower Association | Member. |
| 14. President/Representative of Sindh, Balochistan Rice Millers Associations | Member. |
| 15. Director General, Agriculture Research Sindh, | Member /Secretary. |

TOR of the Committee:

- To invite the Project proposals.
- To evaluate technically, the received proposals.
- To suggest any amendments in the short listed project proposals.
- To prepare recommendations and submit the short listed proposal.
- To monitor and review the progress of the Research Projects.
- To suggest the P.I of the project, for the modification in the project if there is any.
- To discuss and approve the Budget breakup of the successive projects.
- To Review the financial and physical Progress of project after every 03 months.

Log Frame Work of Sindh Agriculture Growth Program (SAGP)

Thematic Areas and Policy Alignment	Key Results of ADP			Risks, Apprehensions, Constraints	Policy and Institutional Considerations	
	Strategic Objectives	Outcome that the ADP is Expected to Influence	Milestone Indicators Showing Progress Towards Objectives a/			
1. Productivity Enhancement	1. Increased production of high value crops with particular reference to small farmer through improvements in crop yield levels.	<p>1.1 Increased use of improved seed varieties by 70 to 80 percent of farmers.</p> <p>1.2 Qualitative improvements in fertilizer, pesticide</p>	<p>1.1 Yield/acre</p> <p>1.2 Reduction in yield gap with respect to baseline</p> <p>1.3 Number of farmers using best practices indicators</p>	<p>1.1 Timely availability of improved seed</p> <p>1.2 Un-updated information provided by extension services</p> <p>1.3 Extension workers not well trained</p> <p>1.4 Low number of trained extension workers.</p> <p>1.5 Crop-specific specialists not available in adequate numbers</p>	<p>1.1 Integrated Crop Management (ICM) approach needs to be followed.</p> <p>1.2 Need for seed Act and authority.</p> <p>1.3 Certified nurseries to provide disease free seed varieties for fruit crops.</p> <p>1.4 Study Tours of selected regions to observe successful examples with respect to specific high value crops.</p> <p>1.5 Region wise availability of crop specialists.</p>	

Thematic Areas and Policy Alignment	Key Results of ADP			Risks, Apprehensions, Constraints	Policy and Institutional Considerations	
	Strategic Objectives	Outcome that the ADP is Expected to Influence	Milestone Indicators Showing Progress Towards Objectives a/			
	2. Improved harvesting and processing (to reduce post-harvest losses)	2.1 Reduced Moisture Retention after harvest at farm level 2.2 Reduced Quantitative Losses at system level.	2.1 Improvement in the quality of products reflected through higher prices received by farmers. 2.2 Production levels increase.	2.1 The financial benefits of improved quality may not reach the growers	2.1 Measures required to verify and protect the process of quality improvement	
2. Marketing & increased commercialization.	1. Improvements in local and export markets.	1.1 Improved quality of products 1.2 Increased commercialization	1.1 Increase in output and value as compared to a baseline. 1.2 Improved packaging (# firms & quantity of output being packed with improvement) 1.3 Increased number of export markets (changes in prices received, quality of exports & new markets captured)	1.1 Low returns due to glut in markets. 1.2 Improved quality control measures may not be exercised	1.1 Effectiveness of market committees be assured 1.2 Provision of fiscal and monetary incentives be made 1.3 Increased role of farmers organizations be assured 1.4 Fulfillment of WTO's requirements be made as a necessary conditions.	

Thematic Areas and Policy Alignment	Key Results of ADP			Risks, Apprehensions, Constraints	Policy and Institutional Considerations	
	Strategic Objectives	Outcome that the ADP is Expected to Influence	Milestone Indicators Showing Progress Towards Objectives a/			
					1.5 Decentralization and strengthening of horticulture company at provincial role.	
3. Institutional Development and Capacity Building	1. Regulation of private sector liberalized.	<p>1.1 Changes in private sector investment level.</p> <p>1.2 Enhancement in public-private partnership levels.</p> <p>1.3 # specialists and trained manpower developed.</p>	<p>1.1 Percentage share of private sector investment in agriculture.</p> <p>1.2 Level of openness of agricultural economy.</p> <p>1.3 Role of small farmers enhances and specific policies developed accordingly.</p>	<p>1.1 Changes in quotas and non-tariff barriers at international level.</p> <p>1.2 Participation of small growers may remain neglected</p>	<p>1.1 Regulatory mechanism be developed.</p> <p>1.2 Tariff and non-tariff barriers to be minimized.</p> <p>1.3 Review and improvement of quality control measures.</p> <p>1.4 Initiatives be taken to search for new markets through participation in world fairs and seminars.</p> <p>1.5 Projects specific to the goals of ADP be timely completed under PSDP.</p>	

Agriculture Component

Recruitment Rules and Terms of Reference of the Project Staff of Sindh Agricultural Growth Project (SAGP)

A. Capacity Building and Institutional Development			
Position/Post	Qualification	Experience	Job Description
Driver (BPS-5) Rs. 10,000/ month	Matric or Middle education having valid LTV / HTV license Must be able to maintain the log book	Experience in driving with any organization will be preferred. Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis	<ul style="list-style-type: none">➤ Driving and Maintaining of project cars / vehicles.➤ Any responsibility assigned by project authorities
Helpers for Mobile Publicity & Passenger Van (BPS-1) Rs. 7,000/ month	Literate	Can work as helper for vehicles. Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis	<ul style="list-style-type: none">➤ To help in vehicles work and any other duties assigned by the competent authority.➤ Any other responsibility assigned by project authorities

B. Investment For Agriculture Growth			
Position/Post	Qualification	Experience	Job Description
Incremental Staff for Chilli Research Laboratory at Kunri			
Chemist (BPS-18) Rs. 50,000/ month	Master's Degree in Chemistry / Bio Chemistry	At least five years experience in relevant field. Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis	<ul style="list-style-type: none"> ➤ Prepare test solutions, compounds, and reagents for laboratory personnel to conduct test. ➤ Analyze organic and inorganic compounds to determine chemical and physical properties, composition, structure, relationships, and reactions, utilizing chromatography, spectroscopy, and spectrophotometer techniques. ➤ Develop, improve, and customize products, equipment, formulas, processes, and analytical methods. ➤ Compile and analyze test information to determine process or equipment operating efficiency and to diagnose malfunctions. ➤ Confer with scientists to conduct analyses of research projects, interpret test results, or develop non standard tests. ➤ Direct, coordinate, and advise personnel in test procedures for analyzing components and physical properties of materials. ➤ Induce changes in composition of substances by introducing heat, light, energy, and chemical catalysts for quantitative and qualitative analysis. ➤ Write technical papers and reports; and prepare standards and specifications for processes, facilities, products, and tests. ➤ Study effects of various methods of processing, preserving, and packaging on composition and properties of foods.
Assistant Chemist (BPS-17) Rs. 45,000/ month	Master's Degree in Chemistry / Bio Chemistry	At least Three years experience in relevant field. Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis	<ul style="list-style-type: none"> ➤ Conduct chemical and physical laboratory tests to assist scientists in making qualitative and quantitative analyses of solids, liquids, and gaseous materials for research and development of new products or processes, quality control, maintenance of environmental standards, and other work involving experimental, theoretical, or practical application of chemistry and related sciences. ➤ Compile and interpret results of tests and analyses. ➤ Make demand plan and inventory materials to maintain supplies.

			<ul style="list-style-type: none"> ➤ Provide and maintain a safe work environment by participating in safety programs, committees, or teams and by conducting laboratory safety audits. ➤ Conduct chemical or physical laboratory tests to assist scientists in making qualitative or quantitative analyses of solids, liquids, or gaseous materials. Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources. ➤ Documenting/Recording Information - Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form. ➤ Analyzing Data or Information - Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts. ➤ Evaluating Information to Determine Compliance with Standards - Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.
<p>Laboratory Assistant (BPS-11)</p> <p>Rs. 15,000/ month</p>	Intermediate pass	<p>At least One year experience in relevant field.</p> <p>Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis</p>	<ul style="list-style-type: none"> ➤ Performing laboratory tests in order to produce reliable and precise data to support scientific investigations; ➤ Carrying out routine tasks accurately and following strict methodologies to carry out analyses; ➤ Preparing specimens and samples; ➤ Constructing, maintaining and operating standard laboratory equipment, for example centrifuges, titrators, pipetting machines and pH meters; ➤ Ensuring the laboratory is well-stocked and resourced; ➤ Recording and sometimes interpreting results to present to senior colleagues; ➤ Using computers and performing mathematical calculations for the preparation of graphs; ➤ Keeping up to date with technical developments, especially those which can save time and improve reliability; ➤ Conducting searches on identified topics relevant to the research; ➤ Following and ensuring strict safety procedures and safety checks.

<p>Laboratory Attendant (BPS-1)</p> <p>Rs. 7,000/ month</p>	<p>Matric or Middle pass</p>	<p>Experience of lab work preferred.</p> <p>Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis</p>	<ul style="list-style-type: none"> ➤ Keeping the lab clean and in order, serving scientists in their work of project activities. ➤ Any other responsibility assigned by project authorities
<p>C. Project Management & Monitoring & Evaluation</p>			
<p>PMU Agriculture (Incremental Staff)</p>			
<p>Project Director Agriculture</p> <p>Rs.250,000/ month</p>	<p>Master's Degree in Agriculture /Engineering</p>	<p>Private / Government sector with experience of at least 15-20years in the relevant field and appropriate background in implementation of foreign aided projects/ programmes in addition to overall service experience of 15-20 years.</p> <p>Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis.</p>	<ul style="list-style-type: none"> ➤ Act as the Project Director (PD) Agriculture of the project ➤ Provide leadership to the project in planning, monitoring and build coordination with the relevant stakeholders. ➤ PD would be responsible for overall project management, monitoring and supervision of the project. ➤ Preparing procurement packages and overseeing technical quality of contracts ➤ Resolve policy and operational problems of the project and other related issues. ➤ Develop linkages/partnerships with provincial, private, national international institutions. ➤ Work closely with provincial agriculture department and operation and maintenance authorities of the project for effective planning and execution of the project and accounts control. Assume overall accountability for the disbursement of operating costs of the project. ➤ Develop and implement a comprehensive monitoring and evaluation system on the activities of the project, to both assess the extent of project deliverables and the impact on project

			<p>stakeholders and beneficiaries.</p> <ul style="list-style-type: none"> ➤ Establish reporting mechanisms & modalities in consultation with the project components for continual assessment throughout the project. ➤ Ensure the quality and substance of periodic monitoring and evaluation requirements ➤ Reporting on the results of monitoring and evaluating all aspects of the project inputs, outputs and outcomes, as well as facilitating learning and stock taking for course correction during the project implementation ➤ Implementing and monitoring project risk management measures and accountability and information sharing mechanisms ➤ Disclosing project implementation information available through websites and other means of communication for enhanced transparency on project implementation and achievement of results ➤ Maintaining a robust grievance redressal mechanism which is fully communicated to the project stakeholders ➤ Any other duties assigned by the Project Steering Committee.
<p>Financial Manager</p> <p>Rs. 140,000/- month</p>	<p>M.com / MBA Finance / Professional qualification in Accountancy (Chartered Accountant Certified Accountant or</p>	<p>Five years experience in the relevant field. Preference will be given to those persons having worked with any foreign aided project.</p> <p>Duration: The appointment is on contract for a period of five years or till completion of the</p>	<ul style="list-style-type: none"> ➤ Establish and maintain project record, oversee disbursement and related control system, work with internal and external auditors. ➤ Prepare annual budgets and prepare expenditure records. ➤ Communicate with project components for the collection of expenditure, reconciled statements. ➤ The matters related to project expenditure, reconciliation and other such matters.

	Cost and Management Accountant).	project on year to year basis	<ul style="list-style-type: none"> ➤ Assist in preparing and maintaining all financial records, scrutinizing the cost elements and computerizing the accounting system of the project.
Accounts Officer Rs. 50,000/ month	M.com / MBA Finance / Professional qualification in Accountancy (Chartered Accountant Certified Accountant or Cost and Management Accountant).	<p>Five years experience in the relevant field. Preference will be given to those persons having worked with any foreign aided project.</p> <p>Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis</p>	<ul style="list-style-type: none"> ➤ Develop and maintain the accounting system for Sindh Agriculture Growth Project (Livestock Component) in accordance with the Operational Manual. ➤ Provide information necessary for the preparation of monthly, by-annual and annual cost accounting statements. ➤ Responsible for the implementation of accounting registration and control procedures. ➤ Maintain proper control of the special accounts/assignment account: see to the preparation of payments, adequate bank statements, documentary proof availability for all disbursements. The Accounts Officer will foresee the special accounts replenishment needs and prepares all relevant documents. ➤ Prepare the draft annual budget. ➤ Establish and operate the accounting system for PMU and PIUs or Sub Offices (DAH/DAB/CVDL) (including reporting norms). ➤ Prepare requests for withdrawal of funds and will prepare all necessary documentation.

			<ul style="list-style-type: none"> ➤ Prepare on the basis of information transmitted by the different specialists/ project stakeholders, all contracts between the Sindh Agriculture Growth Project (Livestock Component) and the participating community. Verify the exactitude of all financial data with the standard norms and register all transactions in the appropriate file. ➤ Review and verify all requests for payments for PIUs or other expense statements and prepare payments to the creditors of the PMU (cheques, transfers). ➤ Register the administrative and PIUs expenditures in the accounting system. ➤ Reconcile monthly the PMU bank accounts with the bank statements. ➤ Control the proper utilization of the petty cash account.
Procurement Specialist Rs.160,000/ month	Relevant advance degree or higher professional qualification preferably in Engineering, supplies management / finance etc	Minimum of eight years experience in the relevant field, well conversant with SPPRA Rules and other procurement manuals. Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis	<ul style="list-style-type: none"> ➤ Plan, manage and implement the overall procurement strategy of all the participating Units under the World Bank credit. Responsible for the entire procurement cycle including preparation and release of EOIs, IFBs, TORs, RFPs, Bid documents, Evaluation of proposals, Negotiations, Awarding of contracts, delivery etc. in accordance with World Bank Guidelines, Credit Agreements and other related documents.

			<ul style="list-style-type: none"> ➤ Identify and resolve critical policy, business, operational and other issues relating to procurement. ➤ Advise on various procurement methods/strategies and identify appropriate methodology for a given procurement. ➤ Coordinate with other stakeholders to ensure achievement of all procurement objectives within the defined scope of credit. ➤ Maximize efficiency of procurement cycle by providing strategic expert advice and implementing necessary controls ensuring cost effectiveness and soundness of all procurements carried out under the credit. ➤ Proper documentation of all procurements as per the instruction; of World Bank including selection and preparation of Standard Documents/formats prescribed by the World Bank for various stages of procurement. ➤ Coordinate with various Departments/Implementing Agencies to identify and plan their procurement needs well ahead in time. ➤ Provide assistance in negotiations with the Consultants where applicable. ➤ Address all matters associated with delivery of goods/services e.g. taxation, duties, clearance etc. ➤ Monitor the progress with Suppliers/
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			<p>Consultants ensuring that all policies/procedures and requirements are fully complied with by them as per the terms of contract with the Implementing Agencies.</p> <ul style="list-style-type: none"> ➤ Supervise the procurement staff in implementing agencies and perform day-to-day operations for completion of tasks within the allotted timeline. ➤ Communicate regularly with the management for the status of various procurement; obtain executive guidance and approval as and when required. ➤ Ensure quality assurance of procurement deliverables as per Implementing Agencies requirements ➤ Develop appropriate procedures, controls, checks, rules, etc. preventing frauds, pilferage etc. in the procurement process. ➤ Build capacity and train the procurement officers and staff of the Implementing Agencies enabling them to employ/contemporary tools/methods of procurement. ➤ Any other task assigned by Superiors.
<p>Chief M&E Officer Rs.150,000/ month</p>	<p>Master's degree in Agriculture Hons / Economics/ Sociology or relevant qualification</p>	<p>At least ten year experience in designing and implementing M&E of Development Projects</p> <p>Duration: The appointment is on contract for a period of five</p>	<ul style="list-style-type: none"> ➤ Monitoring & Evaluation of the project activities and project impact plus supervision of Environmental Management and Social Action Plans. ➤ To develop and maintain effective systems for the monitoring and evaluation and all project work, to analyze the output of this evaluation

		<p>years or till completion of the project on year to year basis</p>	<p>and present the findings to a variety of beneficiaries and in a format most suitable for that beneficiaries.</p> <ul style="list-style-type: none"> ➤ To work with work staff, project managers and directors to establish, and then periodically review, clearly defined and measurable outcomes for project. ➤ To work with the casework and project teams, and IT support, to establish, and then periodically review, systems for capturing data that allows progress against the agreed outcomes to be measured. ➤ Set the standard of data capture required within the organization, and ensure that casework staff are capturing the required data and consistently meeting the data quality standards. ➤ To undertake qualitative and quantitative surveying that provides information in addition to that captured by casework teams, as required. ➤ To take responsible for commissioning research and evaluation work from third parties when required, and to manage this relationship with such organizations to ensure that the work meets a set of pre-agreed objectives. ➤ To lead on the commissioning and management of external evaluators or research teams for particular projects, as required. ➤ To analysis the data generated by the monitoring and evaluation process, and then produce and present management information for casework teams directors that measures performance against agreed outcomes and targets. ➤ To take the lead in producing data and analysis
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			<p>on the impact of project work to be included in the organization's Annual Report, and any other impact reports, that is suitable for a variety of internal and external audiences.</p> <ul style="list-style-type: none"> ➤ To generate data in a format agreed with the Donor. ➤ To research and provide regular internal briefings on developments in policy and practice as it relates to any of the work that project undertakes. ➤ To undertake such other responsibilities as directed by the project authorities. ➤ Demonstrable experience of both qualitative and quantitative social research techniques in a work environment.
<p>Data Base Operator/ Computer Operator</p> <p>Rs.50,000/ month</p>	<p>Master in computer science / Master in IT.</p>	<p>Atleast five years experience in data base system and networking system</p> <p>Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis</p>	<ul style="list-style-type: none"> ➤ To develop data base system for the project, ➤ Prepare networking system between PMU and PIU and all project offices
<p>Social & Environmental Safe Guard Officer</p> <p>Rs.125,000/ month</p>	<p>Master's degree in Social & Environmental Sciences preferably in sociology or rural development</p>	<p>At least five years experience in environmental screening / assessment Agriculture Research Projects including familiarity with Government and Donor's environmental guidelines.</p> <p>Duration: The appointment is on contract for a period of five</p>	<ul style="list-style-type: none"> ➤ Suggest safe guard strategy for implementation of the project interventions ➤ To develop safe guard indicators for project interventions, ➤ Monitoring of the social impact of the project. ➤ Assess project benefit, ➤ To prepare the environmental protection strategy for implementation of project interventions in the field,

		years or till completion of the project on year to year basis	<ul style="list-style-type: none"> ➤ Prepare environmental assessment modules, ➤ Collect and compile the data sheets of environmental assessment of the project area. <p>Suggest strategy for mitigation in the implementation of environmental strategy in the project area.</p>
<p>Communication Officer</p> <p>Rs. 50,000/ month</p>	Master's Degree in Mass Communication	<p>Five years experience in relevant field.</p> <p>Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis</p>	<ul style="list-style-type: none"> ➤ Develop and implement a communications strategy in order to inform the public of local issues and events and promote community involvement in and awareness of project activities, ➤ Coordinate news release and other public information with various project components, officials and media representatives, ➤ Research, develop and coordinate media presentation, exhibits, reports, periodical project meetings, the public or for employees, ➤ Create and maintain a website presenting data on all aspects of the services provided by project , ➤ Write, law out and distribute publications, articles, press releases, information material (folders, leaflets), ➤ Monitor perception of project among stakeholders including project employees, Farmer's, Government other agencies relevant NGOs and the media; ➤ Serve as project representative as staff for committees, community meetings, neighbourhood events and before other Governmental bodies, ➤ Develop and implement methods and materials to promote special events sponsored by the project, ➤ Coordinate special events,
<p>Office Manager/ Secretary</p> <p>Rs.50,000/ month</p>	Master's Degree in Public Administration	<p>Atleast five year experience in relevant field.</p> <p>Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis</p>	<ul style="list-style-type: none"> ➤ To manage the office system, ➤ Documentation and record keeping in the project office,

Receptionist / Secretary Rs.15,000/ month	Intermediate pass with computer skill.	Two Years experience in relevant field with any organization will be preferred. Having computer skills for using MS Office. Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis	<ul style="list-style-type: none"> ➤ Tasks include word processing, drafting correspondence, appointment scheduling, organizing work schedules, setting up filing systems (paper and electronic), telephone answering, call screening, visitor greeting, and supervising of lower level clerical staff. ➤
Messenger /Guard (BPS-1) Rs. 7,000/ month	Matric or Middle pass	Experience of housekeeping and motorcycle driving. Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis	<ul style="list-style-type: none"> ➤ Keeping the office clean and in order, serving officers/visitors and provide messenger services for the project. ➤ To look after the office in relation to security vigilance. ➤ Any other responsibility assigned by project authorities
PIUs Agriculture at District levels (Incremental Staff)			
Accountant Rs. 15,000/month	Graduate.	Four year experience in accounting in government or private organization. Must have excellent command on MS Office package especially Excel spread sheet and have good oral & communication skills. Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis	<ul style="list-style-type: none"> ➤ Assist the officers/accounts officer in office account & budgeting. ➤ Help the accounts officer in preparing budget. ➤ Complete ledgers and cash books and do all necessary books keeping. ➤ Prepare bills of the staff and reconcile the accounts with AG office ➤ Deal all matters with AG office and project authorities ➤ Any responsibility assigned by project authorities
Accounts Clerk Rs. 15,000/month	Graduate.	Four year experience in accounting in government or private organization. Must have	<ul style="list-style-type: none"> ➤ Assist the officers/accounts officer in office account & budgeting. ➤ Help the accounts officer in preparing budget.

		<p>excellent command on MS Office package especially Excel spread sheet and have good oral & communication skills.</p> <p>Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis</p>	<ul style="list-style-type: none"> ➤ Complete ledgers and cash books and do all necessary books keeping. ➤ Prepare bills of the staff and reconcile the accounts with AG office ➤ Deal all matters with AG office and project authorities ➤ Any responsibility assigned by project authorities
Project Coordination Unit (Incremental Staff)			
<p>Project Coordinator Rs. 250,000/month</p>	<p>Possess Master's Degree in natural sciences / biological sciences preferably from abroad with professional diploma in project management</p>	<p>The candidate must have working experience with government and international institutions. Ability to work independently for project management, implementation, monitoring and evaluation. A minimum of 25 years work experience. Having age limit between 45 to 55 years.</p> <p>Candidate must possess domicile in Sindh</p> <p>Duration: The appointment is on contract for a period of five years or till completion of the project on year to year basis.</p>	<ul style="list-style-type: none"> ➤ Act as the Project Coordinator of the project and representative on the Provincial Steering Committee in the capacity of Secretary. ➤ Provide leadership to the project and develop close liaison with Project Directors & other stakeholders for implementation & monitoring of the project. ➤ Prepare Annual Work Plans for project activities and ensure arrangements for their successful execution. ➤ Establish verification checks to randomly assess the quality of reporting and recommend improvements where required. ➤ Work with M & E consultants ➤ Any other relevant duties assigned by the Project Authorities.

Recruitment of the Project Staff (Livestock Component)

- 1- All required staff must possess domicile of Sindh Province
- 2- Local persons will be preferred
- 3- In case of unavailability of incremental staff (according to qualification and experience), regular staff of Livestock Department may be obtained on deputation basis.

A-Capacity Building and Institutional Development

Position/Post	Nature	Qualification	Work Experience	Job Description
AI Training Institute Tando Jam - DAB				
Seconded Staff				
Deputy Director (BPS-18) (in-charge) 40 – 55 years age limit	Regular Employee of Livestock and Fisheries Department, Government of Sindh Nominated by Competent authority on deputation	DVM or higher (MSc/PhD)	DVM, 20 years, M.Sc.(Hons), 18 years and Ph.D 15 Years Government Service.	<ul style="list-style-type: none"> ➤ To overall supervision of the training Institute including <ul style="list-style-type: none"> ○ To supervise the civil work for the construction of AI Training Institute ○ To prepare Annual Training Plan ○ To supervise the Preparation of the training manuals ○ Arrangement of Resource person for training ○ To organize the institutional training and field visits ○ Look after the experimental animals e.g treatment, vaccination etc ➤ Other duties assigned by the competent authority / project director
Training Facilitators (BPS-17/18) (Male) 40 – 55 years age limit	Regular Employee of Livestock and	DVM or higher (MSc/PhD)	DVM, 20 years, M.Sc.(Hons), 18 years and Ph.D 15	<ul style="list-style-type: none"> ➤ To make the arrangement of training including <ul style="list-style-type: none"> ○ To facilitate the Annual Training Plan ○ Preparation of the training manuals

	Fisheries Department, Government of Sindh Nominated by Competent authority on deputation		Years Government Service	<ul style="list-style-type: none"> ○ To facilitate Arrangement of Resource person for training ○ To implement the institutional training and field visits ○ To provide the facility of AI training on experimental animals <p>➤ Other duties assigned by the competent authority / project director</p>
Incremental Staff				
Resource Persons	Need base	DVM or higher (MSc/PhD)	Minimum 5 years teaching / research experience in relevant subject	To provide theoretical information and hands on training regarding concern subject
Training Facilitator (female) Rs. 50000.00 per month 25 – 30 years age limit	Contract – for a period of five years or till completion of the project on year to year basis	DVM or higher (MSc/PhD)	3-5 years experience in Government, semi-Government or NGOs in relevant field	<p>➤ To make the arrangement of training including</p> <ul style="list-style-type: none"> ○ To facilitate the Annual Training Plan ○ Preparation of the training manuals ○ To facilitate Arrangement of Resource person for training ○ To implement the institutional training and field visits ○ To provide the facility of AI training on experimental animals <p>➤ Other duties assigned by the competent authority / project director</p>
Hostel Warden (BPS-17) Rs. 50000.00 per month 25 – 40 years age limit	Contract – for a period of five years or till completion of the project on year to year	Graduate / DVM or higher	3 years experience in Government, semi-Government or NGOs in relevant field	To deal the hostel /Residential / accommodation matters

	basis			
IT Technician (BPS-12) Rs. 15000.00 per month 22 – 30 years age limit	-do-	2 years diploma in Information Technology / Computer Sciences	2 years experience in relevant field	<ul style="list-style-type: none"> ➤ Repair and maintenance of IT equipment ➤ Software Installation ➤ Net working and other related work ➤ Other relevant work assigned by Authority
AI Technician (BPS-12) Rs. 15000.00 per month 22 –30 years age limit	-do-	Diploma Stock Assistant / AI Technician or DVM	At-least 2 years experience in relevant field	<ul style="list-style-type: none"> ➤ To provide the training on female reproductive organs (cattle / buffalo) ➤ Identification of the parts of reproductive organs ➤ Practice of AI rode passing through reproductive organs ➤ Practice of Ai techniques on live female animals
Senior Clerk (BPS-12) Rs. 15000.00 per month 21–28 years age limit	-do-	Graduate from reputed Institute with computer skills	Four year experience of working in government/ autonomous organizations with typing speed as 40 words per minutes. Must be fluent in computer skills to use MS Office package and other office related skills. Experience of file management, office record keeping and maintaining inventory books.	<ul style="list-style-type: none"> ➤ Assist the officers in project management ➤ Maintaining file work and keeping other officer record and inventory. ➤ Preparing the files and assist the officers in preparation of work cases related to project. ➤ Typing letter, documents and other project correspondence. ➤ Any responsibility assigned by project authorities
Cook ((BPS-7) Rs. 12000.00 per month	-do-	Matric	5 years Experience in Cooking	<ul style="list-style-type: none"> ➤ Over all In-charge of Hostel Kitchen / Mess ➤ Responsible and ensure the three time meal to the trainees
Driver (BPS-5) Rs. 10000 per month	-do-	Matric or middle / primary having valid LTV / HTV	Experience in driving with any organization will be	<ul style="list-style-type: none"> ➤ Driving and Maintaining of project vehicles. ➤ Any responsibility assigned by project authorities

		driving license. Must be able to maintain the log book	preferred.	
Office Boy (BPS-1) Rs. 9,000 per month	-do-	Literate	Experienced person will be preferred	<ul style="list-style-type: none"> ➤ To dust furniture, files and racks kept in the Department as well as in office rooms of the officers ➤ To take files from the officer to office and vice versa ➤ To attend to any other official duties as may be assigned to him from time to time by his official superiors.
Cook helper (BPS-1) Rs. 9,000 per month	-do-	Literate	Experience will be preferred	<ul style="list-style-type: none"> ➤ To Assist the cook ➤ Any other duty assigned by Authority
Animal Attendant (BPS-1) Rs. 9,000 per month	-do-	Literate	Experience of cleaning will be preferred.	<ul style="list-style-type: none"> ➤ To handle the animals including watering, feeding, cleaning of animal etc. ➤ Any other duty assigned by Authority
Shed Cleaner (BPS-1) Rs. 9,000 per month	-do-	Literate	Experience of cleaning will be preferred.	<ul style="list-style-type: none"> ➤ To clean the animal sheds. ➤ Any other duty assigned by Authority
Chowkidar (BPS-1) Rs. 9,000 per month	-do-	Literate	Experienced person will be preferred	<ul style="list-style-type: none"> ➤ To keep a watch over the office premises ➤ To open and close different rooms and halls used as offices before and after working hours, respectively ➤ Related duties assigned by authority
Mali (BPS-1) Rs. 9,000 per month	-do-	Literate	Experience in relevant field will be preferred	<ul style="list-style-type: none"> ➤ To plant and graft fruit trees and flower plants ➤ To weed garden, manure plants and trees ➤ To water lawn, decorative plants and other fruit trees ➤ To arrange flower beds ➤ To prepare seedlings ➤ To grow seasonal flowers, to keep garden, lawn, etc. neat and tidy ➤ Other related work assigned by authority
Sanitary Worker (BPS-1) Rs. 9,000 per month	-do-	Literate	Experience of cleaning will be preferred.	<ul style="list-style-type: none"> ➤ To sweep and wash office premises and clean courtyards and other premises of the Project building. ➤ To wash and clean lavatories, washing basins and urinals and spray disinfectant supplied for the purpose.

				<ul style="list-style-type: none"> ➤ To remove cobwebs from walls and ceilings of the offices, lavatories, urinals etc. ➤ Any other official work as may be assigned to him from time to time.
Rehabilitation of Flood/Rain Affected Institutions/ AI Training Centre (Market based)				
Consultant for Civil Work required for rehabilitation (Market based)	Contract – for a period of 4 years or till completion of the project on year to year basis	B.E Civil Engineering	Minimum 10 years experience in relevant field	<p>All relevant civil work matters</p> <p>Preparation of construction plan</p> <p>Preparation of Tender document</p> <p>Demarcation of site and preparing line plan</p> <p>Supervision of civil work</p> <p>Ensuring and Certification of quality work regarding payment to the contractor</p>

B-Dairy Value Chain

Position/Post	Nature	Qualification	Work Experience	Job Description
Establishment of Milk Collection Centers				
Consultant for Civil Work involved in chiller installation (Market based)	Contract – for a period of 4 years or till completion of the project on year to year basis	B.E Civil Engineering	Minimum 10 years experience in relevant field	<p>All relevant civil work matters</p> <p>Preparation of construction plan</p> <p>Preparation of Tender document</p> <p>Demarcation of site and preparing line plan</p> <p>Supervision of civil work</p> <p>Ensuring and Certification of quality work regarding payment to the contractor</p>
Chiller Operator cum Record Keeper (BPS-5) Rs. 10000.00 per month	Contract – for a period of 5 years or till completion of the project on	Matric /Intermediate	Must belongs to same village or community where chillers to be installed, nearby	<ul style="list-style-type: none"> ➤ To operate the chiller as per direction of project management and community ➤ To maintain the proper record of milk collection and sale ➤ To maintain the record of account concerned with related

	year to year basis		village will be considered only in case of unavailability in same village Will be appointed with the consultation of community	chiller
Chowkidar (BPS-1) Rs. 9,000 per month	-do-	Literate	Experienced person will be preferred. Must belongs to same village or community where chillers to be installed, nearby village will be considered only in case of unavailability in same village Will be appointed with the consultation of community	<ul style="list-style-type: none"> ➤ To keep a watch over the premises and all material ➤ To open and close rooms used for chilling before and after working hours, respectively ➤ Related duties assigned by authority
Herd Health/ AI/ Disease Screening				
Driver (BPS-5) Rs. 10000 per month	Contract – for a period of five years or till completion of the project on year to year basis	Matric or middle / primary having valid LTV / HTV driving license. Must be able to maintain the log book	Experience in driving with any organization will be preferred.	<ul style="list-style-type: none"> ➤ Driving and Maintaining of project vehicles. ➤ Any responsibility assigned by project authorities

C-Project Management and Monitoring and Evaluation (Livestock Component)

Position/Post	Nature	Qualification	Work Experience	Job Description
Seconded Staff (PMU)				
<p>Project Director (BPS-19/20)</p> <p>Age limit from 45 to 58 years.</p>	<p>An employee of Livestock and Fisheries Department, Government of Sindh Nominated by Competent authority on deputation appointment on till fulltime</p>	<p>Master's Degree in the relevant filed/DVM</p>	<p>15-20 years of work experience, especially in the field of livestock and project implementation with Candidate must possess domicile in Sindh.</p>	<ul style="list-style-type: none"> ➤ Act as the Project Director (PD) of livestock component. ➤ Provide leadership to the project in planning, monitoring and build coordination with the relevant stakeholders. ➤ PD would be responsible for overall project management, monitoring and supervision of the project. ➤ Preparing procurement packages and overseeing technical quality of contracts ➤ Resolve policy and operational problems of the project and other related issues. ➤ Develop linkages/partnerships with provincial, private, national international institutions. ➤ Work closely with provincial Livestock Department and operation and maintenance authorities of the project for effective planning and execution of the project and accounts control. Assume overall accountability for the disbursement of operating costs of the project. ➤ Develop and implement a comprehensive monitoring and evaluation system on the activities of the project, to both assess the extent of project deliverables and the impact on project stakeholders and beneficiaries. ➤ Establish reporting mechanisms & modalities in consultation with the project components for continual assessment throughout the project. ➤ Ensure the quality and substance of periodic monitoring and evaluation requirements ➤ Reporting on the results of monitoring and evaluating all aspects of the project activities. ➤ Implementing and monitoring project risk management

				<p>measures and accountability and information sharing mechanisms</p> <ul style="list-style-type: none"> ➤ Disclosing project implementation information available through websites and other means of communication for enhanced transparency on project implementation and achievement of results ➤ Maintaining a robust grievance redressal. mechanism which is fully communicated to the project stakeholders ➤ Any other duties assigned by the Project Steering Committee. ➤
<p>I) Deputy Project Director (BPS-17/18)</p> <p>II) Deputy Project Director (BPS-17/18)</p> <p>Age limit from 40 to 58 years.</p>	<p>Regular Employee of Livestock and Fisheries Department, Government of Sindh till appointed on fulltime</p>	<p>Master's Degree in relevant subject / DVM,</p>	<p>Have the experience as 15 to 20 years service in the government departments in implementation of agricultural related projects</p>	<ul style="list-style-type: none"> ➤ To support and assist the Project Director in terms of all activities of the project including Dairy Value Chain, Rehabilitation, Establishment of AI training institute etc. ➤ Other duties assigned by Project Director time to time.
Incremental Staff (PMU)				
<p>Accounts Officer (Market Based)</p> <p>Rs. 140000 per month</p> <p>Age limit from 25 to 40 years.</p>	<p>Contract – for a period of five years or till completion of the project on year to year basis</p>	<p>M.com/ MBA Finance/ Professional qualification in Accountancy (Chartered Accountant Certified Accountant or Cost and</p>	<p>Five years experience in the relevant field and working in an organization dealing with AG office for budgeting and accounting, financial disbursement, budget preparation, expenditure records.</p>	<ul style="list-style-type: none"> ➤ Establish and maintain project record, oversee disbursement and related control system, work with internal and external auditors. ➤ Prepare annual budgets and prepare expenditure records. ➤ Communicate with project components for the collection of expenditure, reconciled statements. ➤ Work with AG office for the matters related to project expenditure, reconciliation and other such matters. ➤ Administrative responsibility assigned by PD. ➤ Help PD in execution of administrative matters. ➤ Participate in routine appraisal and case meetings.

		Management Accountant).	Also having knowledge about financial management system of World Bank. Management of office operation. Having computer skills for using MS Office, data management and computerizing the accounting system of the project skill are must.	<ul style="list-style-type: none"> ➤ Assist in preparing and maintaining all financial records, scrutinizing the cost elements and computerizing the accounting system of the project. ➤ Any responsibility assigned by project authorities
Accounts Clerk/Key Punch Operator (BPS-7) Rs. 12000.00 per month	-do-	Intermediate with computer skill	Four year experience in accounting in government or private organization. Must have excellent command on MS Office package especially Excel spread sheet and have good oral & communication skills.	<ul style="list-style-type: none"> ➤ Assist the officers/accounts officer in office account & budgeting. ➤ Help the accounts officer in preparing budget. ➤ Complete ledgers and cash books and do all necessary books keeping. ➤ Prepare bills of the staff and reconcile the accounts with AG office ➤ Deal all matters with AG office and project authorities ➤ Any responsibility assigned by project authorities
Procurement Specialist (Market Based) Rs. 160000 per month age limit from 25 to 40 years.	-do-	Master degree in Marketing, Management or Business Administration	A minimum of five years experience in a major purchasing environment. Knowledge of:	<ul style="list-style-type: none"> ➤ Responsible for the procurement activity from its initial stages through the award of the bid. ➤ Maintain and develop relationships with vendors. ➤ Assist in the formulation of their requests, processing requisitions by determining that material quantities are correctly specified.

		<p>n in a reputable University.</p>	<ul style="list-style-type: none"> ➤ Standard computer programs like Word and Excel, ➤ Principles of procurement of goods and services, Vendor sourcing and contracts, ➤ Modern office practices, procedures and methods. <p>Ability to:</p> <ul style="list-style-type: none"> ➤ Prepare a variety of procurement documents using standard computer programs such as Word and Excel, ➤ Establish and maintain effective working relationships with others, ➤ Communicate effectively orally and in writing, ➤ Train and direct less experienced personnel of the department. 	<ul style="list-style-type: none"> ➤ Prepare documents and record of bidding and contractual documents to solicit bidders and award contracts according to project policies and procedures. ➤ Perform liaison duties between department, vendor and administration of the project. ➤ Perform other related duties as may be assigned by the project authorities.
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<p>Procurement Clerk/Key Punch Operator (BPS-7) Rs. 12000.00 per month</p>	<p>-do-</p>	<p>Intermediate with computer skill</p>	<p>Four year experience in related field in government or private organization. Must have excellent command on MS Office package especially Excel spread sheet and have good oral & communication skills.</p>	<ul style="list-style-type: none"> ➤ Assist the officers/procurement officer. ➤ Deal all matters related to procurement and project authorities ➤ Any responsibility assigned by project authorities
<p>Data Base Operator / Computer Operator (BPS-16) Rs. 30000.00 per month</p>	<p>-do-</p>	<p>Master in computer science / Master in IT.</p>	<p>At least five years experience in data base system and networking system</p>	<ul style="list-style-type: none"> ➤ To develop data base system for the project, ➤ Prepare networking system between PMU and PIU and all project offices ➤ Other related duties assigned by PD/Authority
<p>Office Manager (BPS-16) Rs. 30000.00 per month</p>	<p>-do-</p>	<p>BA/BSc/ B.Com (Master Degree will be preferred)</p>	<p>At least five year experience in Office Management or relevant field and sufficient knowledge of computer operating.</p> <p>Must have Skills: Administrative, Writing Skills, Reporting Skills, Supply Management, Scheduling, Microsoft Office Skills, Professionalism, Confidentiality,</p>	<ul style="list-style-type: none"> ➤ To manage the office system, ➤ Documentation and record keeping in the project office, ➤ To assist the project Director in office work.

			Organization, Travel Logistics, Typing, Verbal Communication	
Office Assistant (BPS-12) Rs. 15000.00 per month	-do-	Graduate from reputed Institute with computer skills	Four year experience of working in government/ autonomous organizations with typing speed as 40 words per minutes. Must be fluent in computer skills to use MS Office package and other office related skills. Experience of file management, office record keeping and maintaining inventory books.	<ul style="list-style-type: none"> ➤ Assist the officers in project management ➤ Maintaining file work and keeping other officer record and inventory. ➤ Preparing the files and assist the officers in preparation of work cases related to project. ➤ Typing letter, documents and other project correspondence. ➤ Any responsibility assigned by project authorities
Receptionist/ Secretary (Female) (BPS-11) Rs. 15000.00 per month	-do-	Intermediate with computer skills.	Two Years experience in relevant field with any organization will be preferred. Having computer skills for using MS Office.	<ul style="list-style-type: none"> ➤ Tasks include word processing, drafting correspondence, appointment scheduling, organizing work schedules, setting up filing systems (paper and electronic), telephone answering, call screening, visitor greeting, and supervising of lower level clerical staff. ➤ Any official duty assigned by PD
Driver (BPS-5) Rs. 10000 per month	-do-	Matric or middle / primary having valid LTV / HTV	Experience in driving with any organization will be preferred.	<ul style="list-style-type: none"> ➤ Driving and Maintaining of project vehicles. ➤ Any responsibility assigned by project authorities

		driving license. Must be able to maintain the log book		
Office Boy (BPS-1) Rs. 9,000 per month	-do-	Literate	Experienced person will be preferred	<ul style="list-style-type: none"> ➤ To dust furniture, files and racks kept in the Department as well as in office rooms of the officers ➤ To take files from the officer to office and vice versa ➤ To attend to any other official duties as may be assigned to him from time to time by his official superiors.
Chowkidar (BPS-1) Rs. 9,000 per month	-do-	Literate	Experienced person will be preferred	<ul style="list-style-type: none"> ➤ To keep a watch over the office premises ➤ To open and close different rooms and halls used as offices before and after working hours, respectively ➤ Related duties assigned by authority
Sweeper (BPS-1) Rs. 9,000 per month	-do-	Literate	Experience in relevant field will be preferred	<ul style="list-style-type: none"> ➤ To sweep and wash office premises and clean courtyards and other premises of the Project building. ➤ To wash and clean lavatories, washing basins and urinals and spray disinfectant supplied for the purpose. ➤ To remove cobwebs from walls and ceilings of the offices, lavatories, urinals etc. ➤ Any other official work as may be assigned to him from time to time.
Communication & Dissemination Staff (PMU)				
Communications Consultants (Salary or work package negotiable)	Contract – for required period on need basis	Bachelor's degree in related field (English, Marketing, Communicati	2-5 years of communications experience in a corporate, consulting or agency setting' Expert knowledge of	The consultant will work with the project team and review our existing work to complete the following tasks: <ul style="list-style-type: none"> ➤ Work with project staff, field workers and other stakeholders to assess finalize needs and ➤ scope of communications plan ➤ Review project materials, data and other relevant

		on, Fine Arts, Design, Journalism) required	Microsoft suite, including Word, PowerPoint and Excel Working knowledge of Web 2.0 communication tools and how to best leverage them (preferred) Previous experience in designing and developing communications in connection with technology implementations (highly desirable)	<p>information to understand what “story” can be told to different audiences</p> <ul style="list-style-type: none"> ➤ Develop written communications plan that includes target audience, impact intended or possible and recommended communications strategies/materials/collateral for maximum effect. This strategic communication plan will provide information about our impact, success and lessons learned and key messaging that will influence policy changes.
Female Media Coordinator (Salary or work package negotiable)	Contract – for a period of five years or till completion of the project on year to year basis	Graduate in relevant field	3-5 years experience in relevant field	<ul style="list-style-type: none"> ➤ Responsible for media campaign and duties of media anchor ➤ Any other related responsibility assigned by project authorities
Media Attendant (BPS-16) Rs. 30000.00 per month	-do-	Graduate in related subject	Have the experience to handle and use the media equipments in media van.	<ul style="list-style-type: none"> ➤ Media Attendant will work under the supervision of PMU and assigned field duties time to time in related field. ➤ Responsible to travel all over Sindh for publicity and media campaign along with media van ➤ To look after all equipment installed in media van ➤ Other related duties assigned by project authority

Helper for media Van (BPS-5) Rs. 10000 per month	-do-	Matric or equivalent, Must have the knowledge to handle the vehicle	Experience will be preferred	<ul style="list-style-type: none"> ➤ To clean and help in vehicles work ➤ Any other related responsibility assigned by project authorities
Incremental Staff (DPIU)				
District Field Manager(s) (Equivalent to BPS-17 or 18) Rs. 50000.00 Age limit from 30 to 45 years.	Contract – for a period of five years or till completion of the project on year to year basis	DVM	<p>At least 5 years field experience in relevant field in Government / Semi Government /NGOs.</p> <p>Preference will be given to those having Project working experience in organization involved with farming communities or community based organizations. Involved in social mobilization, coordination, report writing and record keeping. Must have the Computer skills.</p>	<ul style="list-style-type: none"> ➤ Responsible for site in charges regarding the execution of the project activities. ➤ Responsible for maintaining coordination, monitoring and implementation of project interventions at various sites in the district. ➤ Feeding into the preparation of Project Implementation Plans (PIPs) and annual budget projection and planning. ➤ Ensuring timely implementation according to the PIP including budgets, procurement plans and agreed quality controls ➤ Providing detailed information for preparation of the procurement packages to respective PMUs as well as supervising contract implementation at field level ➤ Informing, supporting, coordinating and interacting with the farmers and producers at the district and sub-district levels ➤ Preparing regular, monthly and quarterly progress reports that feed into the overall project implementation reporting on the results of all aspects of the project inputs, outputs and outcomes ➤ Ensuring information availability to farmers and producers on project implementation and provide timely responses to requests for information from beneficiaries and other stakeholders ➤ Implementing the grievance redressal mechanism

				<ul style="list-style-type: none"> ➤ Maintain site office at district level. <p>Any responsibility assigned by Project Director.</p>
<p>Accountant (equivalent 16 or 17) Rs. 50000.0 per month (Market based)</p> <p>Age limit from 25 to 35 years.</p>	-do-	BA/BCom/ MA/MCom	5-7 years experience in relevant field	<ul style="list-style-type: none"> ➤ Establish and maintain DPIU record, oversee disbursement and related control system, work with internal and external auditors. ➤ Prepare annual budgets and prepare expenditure records. ➤ Communicate with project components for the collection of expenditure, reconciled statements. ➤ Work with AG office for the matters related to project expenditure, reconciliation and other such matters. ➤ Participate in routine appraisal and case meetings. ➤ Assist in preparing and maintaining all financial records, scrutinizing the cost elements and computerizing the accounting system of the project. <p>➤ Any responsibility assigned by project authorities</p>
<p>Lady Livestock Supervisor (B-16) Rs. 30000.00 Age limit from 25- to 40 years.</p>	-do-	DVM or equivalent	Experience in relevant field will be preferred	<ul style="list-style-type: none"> ➤ To provide the training and technical assistance to the farmers in project area ➤ To provide the basic knowledge specially women of the villages, involved in dairy business, regarding livestock management, feeding, treatment, vaccination etc.
<p>Driver/ Messenger (BPS-5) Rs. 10000 per month</p>	-do-	Matric or middle / primary having valid LTV / HTV driving license. Must be able to maintain the log book	Experience in driving with any organization will be preferred.	<ul style="list-style-type: none"> ➤ Driving and Maintaining of project vehicles. ➤ Any responsibility assigned by project authorities

Junior Clerk (BPS-5) Rs. 10000 per month	-do-	Matric	Must have experience to work on computer specially MS-Office	<ul style="list-style-type: none"> ➤ Typing / record maintain /Filing etc ➤ Official related work assigned by Authority
Office Boys (BPS-1) Rs. 9,000 per month	-do-	Literate	Experienced person will be preferred	<ul style="list-style-type: none"> ➤ To dust furniture, files and racks kept in the Department as well as in office rooms of the officers ➤ To take files from the officer to office and vice versa ➤ To attend to any other official duties as may be assigned to him from time to time by his official superiors.
Office Cleaner / Sweeper (BPS-1) Rs. 9,000 per month	-do-	Literate	Experience in relevant field will be preferred	<ul style="list-style-type: none"> ➤ To sweep and wash office premises and clean courtyards and other premises of the Project building. ➤ To wash and clean lavatories, washing basins and urinals and spray disinfectant supplied for the purpose. ➤ To remove cobwebs from walls and ceilings of the offices, lavatories, urinals etc. ➤ Any other official work as may be assigned to him from time to time.
Security Guard / Chokidar (BPS-1) Rs. 9,000 per month	-do-	Literate	Experienced person will be preferred	<ul style="list-style-type: none"> ➤ To keep a watch over the office premises ➤ To open and close different rooms and halls used as offices before and after working hours, respectively ➤ Related duties assigned by authority

RECRUITMENT COMMITTEE (AGRICULTURE COMPONENT)

1)	Secretary (Agriculture, Supply & Prices Department)	Chairman
2)	Project Coordinator	Member
3)	Project Director PMU	Member
4)	Director General, Agriculture Extension Sindh	Member
5)	Director General, Agriculture Research Sindh	Member

Method of Recruitment

- i). Posts shall be advertised in the well circulated leading newspapers
- ii). Applications received will be scrutinized and short listed
- iii). Test / Interview of the eligible candidates shall be conducted
- iv). List of successful candidates shall be submitted to the project steering committee
- v). Final list shall be submitted to the World Bank for approval

Constitution of Procurement Committees

The procurement committee shall be constituted as per Rule 7 of the SPPRA Rules, 2010. The procuring agency shall, with the approval of its Head of the Department/ competent authority, shall constitute a procurement committees comprising odd number of persons and headed by gazette officer not below the rank of BS-18, and shall ensure that at least one third of the members of a procurement committee are from the agencies or departments other than the procuring agency.

The composition of the procurement committee would be;

- | | |
|--|----------|
| 1. Project Director, PMU | Convenor |
| 2. Project Coordinator | Member |
| 3. Procurement Specialist | Member |
| 4. Representative of Finance Department | Member |
| 5. Representative of Industries Department | Member |

Functions and Responsibilities of Procurement Committee(s)

Procurement committee(s) shall be responsible for:

- 1) Preparing bidding documents
- 2) Carrying out technical as well as financial evaluation of the bids
- 3) Preparing evaluation report as provided in Rule 45;
- 4) Making recommendations for the award of contract to the competent authority; and
- 5) Perform any other function ancillary and incidental to the above.

RECRUITMENT AND PROCUREMENT COMMITTEES (LIVESTOCK COMPONENT)

Composition of Recruitment Committee

- | | |
|---|----------|
| 1. Secretary Livestock and Fisheries | Chairman |
| 2. Project Coordinator | Member |
| 3. Project Director (PMU) | Member |
| 4. Director General Livestock/Extension | Member |

Method of Recruitment

A) Seconded Staff (Government Servant)

Following Seconded Staff will be nominated by Competent Authority i.e. Secretary Livestock and Fisheries among regular staff of the department on deputation basis.

1. Project Director (PMU)
2. Deputy Project Director(s) (PMU)
3. Deputy Director (AI Training Center)
4. Training Facilitator (M) (AI Training Center)

B) Incremental Staff (Contract)

Remaining project staff will be recruited on contract basis by following method

- i. Posts shall be advertised in the Sindhi/Urdu/English/ leading news paper
- ii. Applications received will be scrutinized and short listed
- iii. Test / interview of the eligible candidates
- iv. Names of successful candidates will be submitted to the PSC for approval.

Constitution of Procurement Committee

The procurement committee shall be constituted as per Rule 7 of the SPPRA Rules, 2010. The procuring agency shall, with the approval of its Head of the Department / Competent authority, shall constitute a procurement committee comprising odd number of persons headed by gazette officer not below the rank of BS-18, and shall ensure that at least one third of the members of a procurement committee are from the agencies or department other than the procuring agency. The composition of procurement committee would be

- | | |
|---|----------|
| 1. Project Director, PMU | Convener |
| 2. Project Coordinator | Member |
| 3. Procurement Specialist | Member |
| 4. Representative of Finance Department | Member |
| 5. Representative of Forest Department | Member |

Functions and Responsibilities of Procurement Committee

Procurement committee shall be responsible for

1. Preparing bidding documents
2. Carried out technical as well as financial evaluation of the bids
3. Preparing evaluation report as provided in Rule 45
4. Making recommendations for the award of contract to the competent authority
5. Perform any other function ancillary and incidental to the above

TOR FOR PROJECT'S KEY STAFF

1. AGRICULTURE COMPONENT

1.1 Project Director, PMU (Agriculture)

The PMUs would be responsible for overall project management, monitoring and supervision, as well as fiduciary and safeguards implementation and compliance. The Project Director will head the PMU and will be responsible for project management and implementation through its supporting staff with adequate qualification and expertise. The PMUs and where needed, would be provided with additional technical support through consultants.

The Project Director will take the lead role in planning, coordinating and monitoring of project performance in line with the project implementation schedule, and facilitate regular decision making for quality and in time implementation of various components. He / She will also be responsible for ensuring that resources are budgeted as per approved Project Implementation Plans. Specific responsibilities of the Project Director would be:

- Preparing annual Project Implementation Plans (PIPs). The Agriculture and Livestock PMUs will prepare respective PIPs, which will be consolidated by the Project Coordinator into a single PIP for seeking approval of the PSC and sharing with the Bank task team
- Ensuring timely implementation according to the PIP including budgets, procurement plans and agreed quality controls
- Preparing procurement packages and overseeing technical quality of contracts
- Coordinating and providing technical and project management support to the field implementation teams at the respective Project Implementation Units
- Informing, supporting, coordinating and interacting with the key project partners and ensuring participation from project stakeholders as well as coordination with other development partners
- Reporting on the results of monitoring and evaluating all aspects of the project inputs, outputs and outcomes, as well as facilitating learning and stock taking for course correction during the project implementation
- Implementing and monitoring project risk management measures and accountability and information sharing mechanisms
- Disclosing project implementation information available through websites and other means of communication for enhanced transparency on project implementation and achievement of results
- Maintaining a robust grievance redressal mechanism which is fully communicated to the project stakeholders

Necessary qualifications:

- Master's Degree in Agriculture /Engineering with 15 - 20 years of work experience, especially in the field of agriculture and project implementation with age limit from 45 to 58 years. Candidate must possess domicile in Sindh.

1.2 Finance Manager (Market based) One Position

The Financial Manager is responsible for the overall financial activities of the Sindh Agriculture Department for the Sindh Agricultural Growth Project. The incumbent will serve as the focal point for all financial matters under the project, and will provide overall guidance to all implementing agencies in complying with agreed financial procedures. He will work in close liaison with relevant departments involved in various components of the project and ensure compliance with the World Bank Guidelines/Rules.

Responsibilities;

- 1) Develop and maintain the accounting system for Sindh Agriculture Growth Project (Agriculture Component) in accordance with the Operational Manual.
- 2) Provide information necessary for the preparation of monthly, by-annual and annual cost accounting statements.
- 3) Responsible for the implementation of accounting registration and control procedures.
- 4) Maintain proper control of the special accounts/assignment account: see to the preparation of payments, adequate bank statements, and documentary proof availability for all disbursements. The Accounts Officer will foresee the special accounts replenishment needs and prepares all relevant documents.
- 5) Prepare the draft annual budget.
- 6) Establish and operate the accounting system for PMU and PIUs.
- 7) Prepare requests for withdrawal of funds and will prepare all necessary documentation.
- 8) Prepare on the basis of information transmitted by the different specialists/ project stakeholders, all contracts between the Sindh Agriculture Growth Project (Agriculture component) and the participating community. Verify the exactitude of all financial data with the standard norms and register all transactions in the appropriate file.
- 9) Review and verify all requests for payments for PIUs or other expense statements and prepare payments to the creditors of the PMU (cheques, transfers).
- 10) Register the administrative and PIUs expenditures in the accounting system.
- 11) Reconcile monthly the PMU bank accounts with the bank statements.
- 12) Control the proper utilization of the petty cash account.

Finance Manager should possess following qualifications and skill:

- Master Degree in Business Administration-Finances, Accounting-ICMA;
- Minimum 5 years of relevant professional experience during which the candidate has proven his/her capabilities in financial management or accounts administration;
- Experience in working with international organizations and an excellent knowledge of World Bank's financial procedures, including procurement and contracting;
- Experience in using PIFRA System of GoPakistan would be additional advantage.
- Good communication and social skills;
- Computer skills (Word, Excel, Access)
- Having age limit from 25 to 40 years,

1.3 Accounts Officer (Market based) One position

The Accounts Officer is subordinated to the Project Director and also executes other tasks within the PMU at Hyderabad, or as desired by the Projector Director.

Responsibilities;

- 1) Develop and maintain the accounting system for Sindh Agriculture Growth Project (Livestock Component) in accordance with the Operational Manual.
- 2) Provide information necessary for the preparation of monthly, by-annual and annual cost accounting statements.
- 3) Responsible for the implementation of accounting registration and control procedures.
- 4) Maintain proper control of the special accounts/assignment account: see to the preparation of payments, adequate bank statements, and documentary proof availability for all disbursements. The Accounts Officer will foresee the special accounts replenishment needs and prepares all relevant documents.
- 5) Prepare the draft annual budget.
- 6) Establish and operate the accounting system for PMU and PIUs or Sub Offices (DAH/DAB/CVDL) (including reporting norms).
- 7) Prepare requests for withdrawal of funds and will prepare all necessary documentation.
- 8) Prepare on the basis of information transmitted by the different specialists/ project stakeholders, all contracts between the Sindh Agriculture Growth Project (Livestock Component) and the participating community. Verify the exactitude of all financial data with the standard norms and register all transactions in the appropriate file.
- 9) Review and verify all requests for payments for PIUs or other expense statements and prepare payments to the creditors of the PMU (cheques, transfers).
- 10) Register the administrative and PIUs expenditures in the accounting system.
- 11) Reconcile monthly the PMU bank accounts with the bank statements.
- 12) Control the proper utilization of the petty cash account.

Necessary qualifications:

- Master Degree in MBA (Finances), MCOM, Accounting-ICMA;
- Minimum 5 years of relevant professional experience during which the candidate has proven his (her) capabilities in financial management or accounts administration;
- Experience in working with international organizations and an excellent knowledge of World Bank's financial procedures, including procurement and contracting;
- Experience in using PIFRA System of GoPakistan would be additional advantage.
- Good communication and Computer skills (Word, Excel, Access)
- Fluency in Croatian and working knowledge of English.
- Having age limit from 25 to 40 years,

1.4 Procurement Specialist (Market based) One Position

The Procurement Specialist is responsible for the overall procurement activities of the Sindh Agriculture Growth Project (Agriculture Component) including Project Management Unit (PMU) or Project Implementation Units (PIUs). The incumbent will serve as the focal point for all procurement matters under the project, and will provide comprehensive procurement support including procurement planning and monitoring, preparation of bidding documents, evaluation of bids, and preparation of contracts and overall guidance to all implementing agencies in complying with agreed procurement procedures. He will work in close liaison with relevant department/regulatory authorities involved in various components of the project and ensure compliance with the World Bank Guidelines/Rules.

DUTIES & RESPONSIBILITIES:

The duties and responsibilities of the Procurement Specialist would include to:

1. Plan, manage and implement the overall procurement strategy of all the participating Units under the World Bank credit. Responsible for the entire procurement cycle including preparation and release of EOIs, IFBs, TORs, RFPs, Bid documents, Evaluation of proposals, Negotiations, Awarding of contracts, delivery etc. in accordance with World Bank Guidelines, Credit Agreements and other related documents.
2. Identify and resolve critical policy, business, operational and other issues relating to procurement.
3. Advise on various procurement methods/strategies and identify appropriate methodology for a given procurement.
4. Coordinate with other stakeholders to ensure achievement of all procurement objectives within the defined scope of credit.
5. Maximize efficiency of procurement cycle by providing strategic expert advice and implementing necessary controls ensuring cost effectiveness and soundness of all procurements carried out under the credit.
6. Proper documentation of all procurements as per the instruction; of World Bank including selection and preparation of Standard Documents/formats prescribed by the World Bank for various stages of procurement.
7. Coordinate with various Departments/Implementing Agencies to identify and plan their procurement needs well ahead in time.
8. Provide assistance in negotiations with the Consultants where applicable.
9. Address all matters associated with delivery of goods/services e.g. taxation, duties, clearance etc.
10. Monitor the progress with Suppliers/Consultants ensuring that all policies/procedures and requirements are fully complied with by them as per the terms of contract with the Implementing Agencies.

11. Supervise the procurement staff in implementing agencies and perform day-to-day operations for completion of tasks within the allotted timeline.
12. Communicate regularly with the management for the status of various procurements; obtain executive guidance and approval as and when required.
13. Ensure quality assurance of procurement deliverables as per Implementing Agencies requirements
14. Develop appropriate procedures, controls, checks, rules, etc. preventing frauds, pilferage etc. in the procurement process.
15. Build capacity and train the procurement officers and staff of the Implementing Agencies enabling them to employ/contemporary tools/methods of procurement.
16. Any other task assigned by Superiors.

EXPECTED OUTPUT:

1. Maximize efficiency of procurement cycle by providing strategic expert advice and implementing necessary controls ensuring cost effectiveness and soundness of all procurements carried out under the credit
2. Ensure quality assurance of procurement deliverables its per implementing Agencies requirements
3. Develop appropriate procedures, controls, checks, rules, etc. preventing frauds, pilferage etc. in the procurement process.
4. Build capacity and train the procurement officers and staff of the Implementing Agencies enabling them to employ/contemporary tools/methods of procurement. It is also inclusive of the training of at least 2-3 staff members of each entity.

The Procurement Specialist should possess following qualifications and skills.

- Relevant advance degree or higher professional qualifications, preferably in Engineering, Supplies Management/ Procurement, Finance, Business or Commerce
 - Membership of a relevant professional organization.
 - At least 05 years experience in procurement planning and management in the State/ Private Sector / International Organization (implementing or overseeing actual procurement processes in accordance with good public procurement practices, use of internationally accepted contract documents for works, goods and services).
 - Thorough knowledge of administrative system and procedure of the Government of Pakistan and World Bank procurement guidelines
 - Excellent written and oral communication skills in English Language Strong computer skills, especially in the use of MS Word, Power Point and Excel.
- Having age limit from 25 to 40 years,

1.5 Chief M&E Officer (Market based) One position

Chief M&E officer is responsible for guiding the overall M&E strategy and implementation of related activities relating to PMU Agriculture, plus providing timely and relevant information to project stakeholders. This entails close communication with all involved in M&E design, implementation and coordination.

Critical tasks for the M&E officer are setting up the M&E system under PMU and ensuring it is implemented effectively by the key stakeholders, namely the primary stakeholders and implementing partners. This is undertaken through the joint development of a shared M&E system that is based on existing formal and informal mechanisms and systems among key stakeholders. M&E officer will report to Project Director, PMU and he/she must consult with PD when making decisions, including consultations with partners and primary stakeholders, when it comes to consensus on methodology and on analysis of the implications of M&E data.

Implementation of M&E

- Based on the Annual Work Plan (AWP) and in particular the programme budgets, design the framework for the physical and process monitoring of project activities.
- Guide staff and implementing partners in preparing their progress reports. Together, analyse these reports in terms of problems and actions needed. Prepare consolidated progress reports for project management to submit to the relevant bodies, in accordance with approved reporting formats and timing.
- Review monitoring reports, analyse them for impact evaluation and to identify the causes of potential bottlenecks in project implementation.
- Collaborate with staff and implementing partners on qualitative monitoring to provide relevant information for ongoing evaluation of project activities, effects and impacts.
- Foster participatory planning and monitoring by training and involving primary stakeholder groups in the M&E of activities.
- Plan for regular opportunities to identify lessons learned and implications for the project's next steps. Participate in these events when possible.

Communication

- Prepare reports on M&E findings, as required, working closely with financial controller, technical staff and implementing partners.
- Undertake regular visits to the field to support implementation of M&E and to identify where adaptations might be needed.
- Guide the regular sharing of the outputs of M&E findings with project staff, implementing partners and primary stakeholders.
- Make regular reports to the project steering committee, highlighting areas of concern and preparing the documentation for review at meetings with computer skill.

Qualifications, experience and age required

At least 8-10 years of proven experience with:

- Master degree in relevant field with diploma in project management.
 - Logical framework approach and other strategic planning approaches;
 - M&E methods and approaches (including quantitative, qualitative and participatory);
 - Planning, implementation and reporting of M&E systems;
 - Training in M&E development and implementation;
 - Facilitating in analysis sessions of M&E data with multiple stakeholders;
 - Familiarity with and a supportive attitude towards processes of strengthening local organisations and building local capacities for self-management,
- Age limit in between 30 to 40 years;

1.6 Social and Environment Safeguard Officer (Market based)

TOR for Social and Environmental Safeguard Officer for (SAGP)

1. Introduction

The World Bank is funding SAGP Project to be implemented by the Agriculture and Livestock Departments in the Government of Sindh through its PMUs and PIUs of the relevant departments and local farming communities.

The Project Development Objectives are; *“to improve the productivity and competitiveness of small and medium producers in selected commodity value chain”*.

These objectives would be achieved by; (a) Investing in knowledge and technology for producers in the sub-sectors of crops and livestock; and (b) Strengthening public sector institutions to enhance the enabling environment for sustained sectoral growth.

The project has three components:

Component A: Capacity Building and Institutional Development

Component B: Investment for Agricultural Growth

Component C: Project Management and Monitoring and Evaluation

The project will be supporting various interventions including infrastructure development in the rural communities and hence will have to consider the environmental and social safeguards of the project. The Social and Environmental Safeguard Officer will work with the Project Management Team and in the project areas to ensure that Environment and Social Safeguards are adequately covered.

2. The Objective

The objective of this assignment is to assist the PCU and PMUs to implement the project with sound environmental and social safeguard policies in the SAGP as a whole, giving priority to the community investment component of the project.

The specific objectives are as follows;

- i. To provide technical support and guidance to develop an environmental and social guideline for the SAGP activities, particularly community investments, merging the present Environment and Social Management Framework(s).
- ii. To assist project staff to ensure environmentally fitted infrastructure development and other activities.
- iii. To enhance knowledge and capacity of project staff and other related stakeholders on environmental and social aspects of the project.
- iv. To guide both technical and program staff to implement environmentally and socially sound community investments.

3. Key Responsibilities and Specific Tasks

The Social and Environmental Safeguard Officer is expected to take responsibility of giving technical assistance to the technical staff of the project in implementing the Environment and Social Management Framework(s) on all project activities.

- i. Through discussion with the relevant stakeholders and field staff, identify the level of environmental and social safeguard measures to be implemented.
- ii. Develop and monitor mitigation measures to be adopted by the relevant stakeholders.

Specific Tasks

- ✓ Prepare & update environmental and social management frameworks, action plans and formats to suit project needs

- ✓ Support preparation and delivery of EMF / SMF orientation, training and capacity building activities for all project stakeholders.
- ✓ Identify further training requirements of technical and field staff of the project.
- ✓ Conduct awareness and training programs on identification of environmental and social impacts and mitigation measures
- ✓ Develop screening, assessment and monitoring formats (as the case may be) for all sub activities
- ✓ Review the environmental section of the prefeasibility and feasibility reports,
- ✓ Ensure whether further Environmental Information is required for the project.
- ✓ Supervise and facilitate the carrying out of the environment and social screening
- ✓ Identify potential environmental and social issues that would need to be considered by the subproject (plan, design, costs, etc.)

4. Key Outputs and Deliverables

The Social and Environmental Safeguard Officer will monitor the key outputs and deliverables mentioned in the agreed activity plan;

- i. Train and conduct awareness on the Environmental and Social Safeguards in all Project Areas and for all Project stakeholders
- ii. Review and update the Social and Environmental Management Frameworks
- iii. Prepare Social and Environmental Screening procedures
- iv. Prepare and submit a work plan and progress reports on a monthly basis

5. Reporting and Performance Evaluation

The Social and Environmental Safeguard Officer will report to the Project Director, SAGP and will liaise closely with the PCU and PIUs.

6. Key Qualifications and Skills Required

- The applicant should have minimum qualification in Masters in the fields of Environmental and Social Science with a minimum work experience of 5 years.
- He/She should have worked with similar assignments in the past. He/She should have had formal training on Environmental Assessment and Social Management. He/She should have experience in conducting stakeholder consultations and meetings, carrying out Environmental and social assessments studies. Applicants with good understanding of agriculture development projects preferably with UN agencies or international NGO's and able to work independently are at an advantage.
- Excellent communication skills both written and interpersonal are essential as most of the works will be done through the process of consultations and awareness meetings.
- He/She should be willing to travel to the field in remote areas to work on the given tasks.

7. Duration and Terms and conditions

- i. The project will offer a suitable remuneration package
- ii. This contract is offered on an assignment basis initially for three months and extension based on satisfactory performance
- iii. The duty station is based in Karachi but she/he should be willing to travel frequently to the project implementation area(s).

8. Relevant documents to be submitted

- i. Copies of relevant documents like valid Registration Certificate, and Tax Clearance Certificate proving the eligibility to carry out the assignment;
- ii. Copies of Academic & Training Certificates, Experience Certificates and Curriculum Vitae should be attached;

9. Age Limit: In between 25 to 40 years.

1.7 Communication Officer (Market based)

Under the overall supervision of the Project Director, PMU Agriculture Department, the Communication Officer will be responsible to perform the following tasks and duties, but not limited, under the project SAGP.

DUTIES & RESPONSIBILITIES:

The duties and responsibilities of the Communication Officer would include to:

1. Develop and implement the project's communication strategy, mechanisms and action plans with clear targets and indicators that will serve to increase the project's exposure.
2. Provide day to day reporting on the status of project implementation and analysis of programme activities.
3. Based on input from the project staff, produce high quality and easy to read monthly, quarterly and yearly project progress reports for the donor, PMUs, PCU and other stakeholders.
4. Edit, format and adapt form and content of all project documentation into a standard set of highly attractive, profile enhancing, easy to read, concise and accurate documents with high quality analysis.
5. Coordinate and produce newsletters, brochures, fact-sheets, project publications, draft correspondence, videos/audios and other relevant materials.
6. Together with the project staff, lead editorial and planning meetings for project publications, and liaise with external advertising, design and printing firms.
7. Review and give inputs for any publication, books and other relevant materials.
8. Develop, manage and improve website content, gaining input from other project staff as necessary. Develop content for Project's website and innovative approaches to using the web, broadcast, multi-media and new electronic technologies.
9. Support project staff in organizing and managing seminars, workshops, press conferences and field visits as required.
10. Provide support to the PMUs and PCU for making impressive and effective presentations.
11. Intensify and maintain a steady flow of information on Project's activities to World Bank Implementing partners and media.
12. Assure proper flows of information between PCU and the project's implementation units at field level to ensure that all the project staff is kept abreast of project activities.
13. Participate to coordination meetings and brief World Bank Missions about decisions and items under discussion during those meetings as well as consolidate and report information to other relevant implementation agencies about Project's activities.
14. Perform other duties as required by the Project Director that may involve other aspects of programme work.

Necessary qualifications:

- Master's Degree in the relevant field 5 years of work experience, especially in the field of communication with age limit from 25 to 40 years.

TOR FOR PROJECT'S KEY STAFF

2. LIVESTOCK COMPONENT

2.1 Project Director, PMU (Livestock)

The PMUs would be responsible for overall project management, monitoring and supervision, as well as fiduciary and safeguards implementation and compliance. The Project Director will head the PMU and will be responsible for project management and implementation through its supporting staff with adequate qualification and expertise. The PMUs and where needed, would be provided with additional technical support through consultants.

The Project Director will take the lead role in planning, coordinating and monitoring of project performance in line with the project implementation schedule, and facilitate regular decision making for quality and in time implementation of various components. He / She will also be responsible for ensuring that resources are budgeted as per approved Project Implementation Plans. Specific responsibilities of the Project Director would be:

- Preparing annual Project Implementation Plans (PIPs). The Agriculture and Livestock PMUs will prepare respective PIPs, which will be consolidated by the Project Coordinator into a single PIP for seeking approval of the PSC and sharing with the Bank task team
- Ensuring timely implementation according to the PIP including budgets, procurement plans and agreed quality controls
- Preparing procurement packages and overseeing technical quality of contracts
- Coordinating and providing technical and project management support to the field implementation teams at the respective Project Implementation Units
- Informing, supporting, coordinating and interacting with the key project partners and ensuring participation from project stakeholders as well as coordination with other development partners
- Reporting on the results of monitoring and evaluating all aspects of the project inputs, outputs and outcomes, as well as facilitating learning and stock taking for course correction during the project implementation
- Implementing and monitoring project risk management measures and accountability and information sharing mechanisms
- Disclosing project implementation information available through websites and other means of communication for enhanced transparency on project implementation and achievement of results
- Maintaining a robust grievance redressal mechanism which is fully communicated to the project stakeholders

Necessary qualifications:

- Master's Degree in the relevant field/DVM with 15-20 years of work experience, especially in the field of livestock and project implementation with age limit from 40 to 58 years. Candidate must possess domicile in Sindh.

2.2 Deputy Project Director Two position

Job Descriptions:

1. Take lead to prepare and implement the program activities under SAGP with close coordination with the implementing partners (PMU) and PIUs of Livestock Department.
2. Ensure achievement of the project targets under Livestock component through appropriate technical and facilitating activities using the modern as well as farmer's local knowledge and farming systems.
3. Initiate all procedural formalities for engaging local consultants for the project interventions required at PMU level.
4. Coordinate and strengthen linkage with PCU, PIUs, Consulting firms and other stakeholders to procure their support and leverage resources, and create synergy in the project.
5. Identify opportunities for interventions and strengthen input- output market linkages between local and apex market players.
6. Assist Project Director in the preparation of monthly, quarterly and other special reports as required by the PSC with critical assessment of issues, learning, way forward and the work plan.
7. Act as the resource person in the related tasks under the program activities of PMU.
8. Carry out other tasks assigned by the Project Director.

Qualification and experience

- Master's Degree in relevant subject / DVM,
- Have the experience as 15 to 20 years service in the government departments in implementation of Livestock related projects,
- Computer Literacy - Microsoft Word, Excel and PowerPoint,
- Good spoken and written English,
- Having age limit from 40 to 55 years,
- Candidate must possess domicile in Sindh

2.3 Procurement Specialist-One Position

The Procurement Specialist is responsible for the overall procurement activities of the Sindh Agriculture Growth Project (Livestock Component) including Project Management Unit (PMU) or Project Implementation Units (PIUs) and other participating units within the project like Directorate(s) of Animal Husbandry (DAH) /Animal Breeding (DAB)/Central Veterinary Diagnostic Laboratory (CVDL), Ministry of Livestock and Fisheries and Regulatory Authorities under the project. The incumbent will serve as the focal point for all procurement matters under the project, and will provide comprehensive procurement support including procurement planning and monitoring, preparation of bidding documents, evaluation of bids, and preparation of contracts and overall guidance to all implementing agencies in complying with agreed procurement procedures. He will work in close liaison with relevant department/regulatory authorities involved in various components of the project and ensure compliance with the World Bank Guidelines/Rules.

DUTIES & RESPONSIBILITIES:

The duties and responsibilities of the Procurement Specialist would include to:

1. Plan, manage and implement the overall procurement strategy of all the participating Units under the World Bank credit. Responsible for the entire procurement cycle including preparation and release of EOIs, IFBs, TORs, RFPs, Bid documents, Evaluation of proposals, Negotiations, Awarding of contracts, delivery etc. in accordance with World Bank Guidelines, Credit Agreements and other related documents.
2. Identify and resolve critical policy, business, operational and other issues relating to procurement.
3. Advise on various procurement methods/strategies and identify appropriate methodology for a given procurement.
4. Coordinate with other stakeholders to ensure achievement of all procurement objectives within the defined scope of credit.
5. Maximize efficiency of procurement cycle by providing strategic expert advice and implementing necessary controls ensuring cost effectiveness and soundness of all procurements carried out under the credit.
6. Proper documentation of all procurements as per the instruction; of World Bank including selection and preparation of Standard Documents/formats prescribed by the World Bank for various stages of procurement.
7. Coordinate with various Departments/Implementing Agencies to identify and plan their procurement needs well ahead in time.
8. Provide assistance in negotiations with the Consultants where applicable.
9. Address all matters associated with delivery of goods/services e.g. taxation, duties, clearance etc.

10. Monitor the progress with Suppliers/Consultants ensuring that all policies/procedures and requirements are fully complied with by them as per the terms of contract with the Implementing Agencies.
11. Supervise the procurement staff in implementing agencies and perform day-to-day operations for completion of tasks within the allotted timeline.
12. Communicate regularly with the management for the status of various procurements; obtain executive guidance and approval as and when required.
13. Ensure quality assurance of procurement deliverables as per Implementing Agencies requirements
14. Develop appropriate procedures, controls, checks, rules, etc. preventing frauds, pilferage etc. in the procurement process.
15. Build capacity and train the procurement officers and staff of the Implementing Agencies enabling them to employ/contemporary tools/methods of procurement.
16. Any other task assigned by Superiors.

EXPECTED OUTPUT:

1. Maximize efficiency of procurement cycle by providing strategic expert advice and implementing necessary controls ensuring cost effectiveness and soundness of all procurements carried out under the credit
2. Ensure quality assurance of procurement deliverables its per implementing Agencies requirements
3. Develop appropriate procedures, controls, checks, rules, etc. preventing frauds, pilferage etc. in the procurement process.
4. Build capacity and train the procurement officers and staff of the Implementing Agencies enabling them to employ/contemporary tools/methods of procurement. It is also inclusive of the training of at least 2-3 staff members of each entity.

The Procurement Specialist should possess following qualifications and skills.

- Relevant advance degree or higher professional qualifications, preferably in Engineering, Supplies Management/ Procurement, Finance, Business or Commerce
 - Membership of a relevant professional organization.
 - At least 05 years experience in procurement planning and management in the State/ Private Sector / International Organization (implementing or overseeing actual procurement processes in accordance with good public procurement practices, use of internationally accepted contract documents for works, goods and services).
 - Thorough knowledge of administrative system and procedure of the Government of Pakistan and World Bank procurement guidelines
 - Excellent written and oral communication skills in English Language
 - Strong computer skills, especially in the use of MS Word, Power Point and Excel.
- Having age limit from 25 to 40 years,

2.4 Account Officer – One Position

The Accounts Officer is subordinated to the Project Director and also executes other tasks within the PMU at Hyderabad, or as desired by the Projector Director.

Responsibilities;

- 1) Develop and maintain the accounting system for Sindh Agriculture Growth Project (Livestock Component) in accordance with the Operational Manual.
- 2) Provide information necessary for the preparation of monthly, by-annual and annual cost accounting statements.
- 3) Responsible for the implementation of accounting registration and control procedures.
- 4) Maintain proper control of the special accounts/assignment account: see to the preparation of payments, adequate bank statements, and documentary proof availability for all disbursements. The Accounts Officer will foresee the special accounts replenishment needs and prepares all relevant documents.
- 5) Prepare the draft annual budget.
- 6) Establish and operate the accounting system for PMU and PIUs or Sub Offices (DAH/DAB/CVDL) (including reporting norms).
- 7) Prepare requests for withdrawal of funds and will prepare all necessary documentation.
- 8) Prepare on the basis of information transmitted by the different specialists/ project stakeholders, all contracts between the Sindh Agriculture Growth Project (Livestock Component) and the participating community. Verify the exactitude of all financial data with the standard norms and register all transactions in the appropriate file.
- 9) Review and verify all requests for payments for PIUs or other expense statements and prepare payments to the creditors of the PMU (cheques, transfers).
- 10) Register the administrative and PIUs expenditures in the accounting system.
- 11) Reconcile monthly the PMU bank accounts with the bank statements.
- 12) Control the proper utilization of the petty cash account.

Necessary qualifications:

- University Master Level Degree in Business Administration-Finances, Accounting-ICMA;
- Minimum 5 years of relevant professional experience during which the candidate has proven his (her) capabilities in financial management or accounts administration;
- Experience in working with international organizations and an excellent knowledge of World Bank's financial procedures, including procurement and contracting;
- Experience in using PIFRA System of GoPakistan would be additional advantage.
- Good communication and social skills;
- Computer skills (Word, Excel, Access)
- Fluency in Croatian and working knowledge of English.
- Having age limit from 25 to 40 years,

TOR FOR CIVIL WORK CONSULTANCY

Civil Work Consultant is required to work for the construction and rehabilitation of various buildings under the “Sindh Agriculture Growth Project (Livestock Component)” assisted by World Bank”.

1. Scope of Service

The consultant shall assist the Project Director on all matter related to the construction activities. The Civil Work Consultant will be responsible for the overall Civil Work activities including a) Establishment of Artificial Insemination Training Centre at Sindh Agriculture University Tandojam b) Rehabilitation of i) Semen Production Unit Karachi ii) Breed Improvement Centre Rohri (buffalo farm) iii) 119 Veterinary Hospital/Centres/Dispensaries/Stockpile/CVDL sub-centres/Livestock Production Offices in various districts of Sindh c) Construction of rooms for 153 milk chillers in 8 targeted districts of Sindh. These all activities will be carried out in 4 years time period. He will be responsible to ensure designing, quality construction and overall supervision in the guideline of the World Bank.

2. Tasks and responsibly

- Document preparation, CW drawings, maps, lay out plan and bill of quantities.
- Seek approval of Project Management Unit (PMU)/ World Bank on the said documents as and where required.
- Visit the location/ site for new construction / rehabilitation.
- Ensure that all related rules regulations safety precautions have been followed at site.
- Monitor the quality of construction periodically to ensure that structure of the buildings are constructed in the safest and sturdiest manner.
- Guide PMU and suggest remedial action if required and carry out regular site supervision.
- Review and provide comments on civil work suggestions received from PMU to ensure compliance of rules and regulations.
- Preparation of Reporting Formats, Checklists and Guidelines, as necessary to facilitate/supplement/document for construction work.
- Preparation of status reports for PMU and World Bank on construction work.
- Undertake documentation of Case Histories (such as good and bad practices) with regard to construction work.

3. Qualification and Experience

- Degree in Civil Engineering with 10 years work experience
- Experience in preparation of CW drawings, layout plans, charts, reports, etc.
- Experience of monitoring Construction Projects
- Should be familiar with the working of Federal/Provincial Government and the World Bank.
- Should process good documentation, report writing and computer skills.

4. Reporting

- The consultant will report to the Project Director of PMU (Livestock component) or his authorized representative.

5. Consultancy terms

- The assignment is tentatively for a period of 12 months purely on contractual basis. The tenure may be renewed on yearly basis up to the completion of project by the approval of authority on the basis of project requirement and the performance of the individual consultant.

3. PROJECT COORDINATION UNIT (PCU) STAFF

3.1 Project Coordinator (PC),

Project Coordination Unit, Sindh Agriculture Growth Project (SAGP)

Project Coordinator under the direct supervision of Project Steering Committee (PSC) will be heading a liaison office in the form of Project Coordination Unit, which will be established in the Planning and Development Department, Government of Sindh. The PCU would ensure joint monitoring, reporting and effective coordination amongst the line agencies including Agriculture and Livestock & Fisheries Departments as well as with the World Bank, Project monitoring and impact evaluation studies and supervision of the overall Environmental and Social Monitoring Plan (ESMP). The project coordinators office would house the M&E consultant for overall project monitoring and for tasks including baseline development, joint reporting and for Project Management and Information System (PMIS) establishment and operationalization etc. and the project's activity, development of Sindh Agricultural development strategy will also be implemented by the office of the Project Coordinator.

Academic & Professional Qualifications required for PC

- Possess Master's Degree in natural sciences / biological sciences preferably from abroad with professional diploma in project management. The candidate must have working experience with government and international institutions.
- Ability to work independently and handle many tasks simultaneously.
- Be high organised and systematic, with great attention to project management, implementation, monitoring and evaluation.
- Ability to work efficiently under pressure, meet deadlines and occasionally work overtime.
- A minimum of 25 years work experience.
- Background in Agriculture working experience will be an added advantage.
- Having age limit between 45 to 55 years.
- Candidate must possess domicile in Sindh.

3.2 M&E Specialist One position

M&E specialist is responsible for guiding the overall M&E strategy and implementation of related activities within the project and via partners, plus providing timely and relevant information to project stakeholders. This entails close communication with all involved in M&E design and coordination: core project and partner M&E staff; representatives from the steering committee or similar unit; representatives from primary stakeholder groups; and the project director, external consultants and field staff when appropriate, plus members of external M&E-related missions.

Critical tasks for the M&E Specialist are setting up the M&E system and ensuring it is implemented effectively by the key stakeholders, namely the primary stakeholders and implementing partners. This is undertaken through the joint development of a shared M&E system that is based on existing formal and informal mechanisms and systems among key stakeholders. This needs to be supported by facilitating stakeholders to value, have appropriate capacities for and undertake their own M&E activities, and to link these into an overall assessment of project progress and needed actions.

M&E specialist will report to Project Coordinator, PCU and he/she must consult with PC when making decisions, including consultations with partners and primary stakeholders, when it comes to consensus on methodology and on analysis of the implications of M&E data.

Setting up the system

- Help revise the project log frame matrix, particularly in the areas of the objective hierarchy, indicators and monitoring mechanisms.
- Develop the overall framework for project M&E, for example, annual project reviews, participatory impact assessments, process monitoring, operations monitoring and lessons-learned workshops.
- Guide the process for identifying and designing the key indicators for each component, to record and report physical progress. Also steer the process for designing the format of such progress reports.
- Guide the process for identifying the key performance questions and parameters for monitoring project performance and comparing it to targets. Design the format for such performance reports.
- Clarify the core information needs of the steering committee, funding agencies and the project management units.
- With stakeholders, set out the framework and procedures for the evaluation of project activities.
- Based on the review of existing data on the area, draw up the TOR for, design and cost out a baseline survey and a needs assessment survey.
- With the implementing partners, review their existing approaches and management information systems and agree on any required changes, support and resources.
- Identify other M&E staff that the project needs to contract. Guide recruitment.
- Recruit, guide and supervise organisations that are contracted to implement special surveys and studies required for evaluating project effects and impacts.

- Ensure that all service provider contracts include specifications for the internal monitoring required of them, the reporting systems and the penalties for failure to report as specified.
- Develop a plan for project-related capacity-building on M&E and for any computer-based support that may be required.

Implementation of M&E

- Based on the Annual Work Plan (AWP) and in particular the programme budgets, design the framework for the physical and process monitoring of project activities.
- Guide staff and implementing partners in preparing their progress reports. Together, analyse these reports in terms of problems and actions needed. Prepare consolidated progress reports for project management to submit to the relevant bodies, in accordance with approved reporting formats and timing.
- Review monitoring reports, analyse them for impact evaluation and to identify the causes of potential bottlenecks in project implementation.
- Collaborate with staff and implementing partners on qualitative monitoring to provide relevant information for ongoing evaluation of project activities, effects and impacts.
- Foster participatory planning and monitoring by training and involving primary stakeholder groups in the M&E of activities.
- Identify the need and draw up the TORs for specific project studies.
- Ensure that, in general, project monitoring arrangements comply with the project loan agreement and, in particular, the provisions of this agreement are fully observed in the design of project M&E.
- Inform and join external supervision and evaluation missions – of funding and other agencies – by screening and analysing monitoring reports as well as by furnishing direct personal knowledge of the field situation.
- Organise (and provide) refresher training in M&E for project and implementing partner staff, local organisations and primary stakeholders.
- Plan for regular opportunities to identify lessons learned and implications for the project's next steps. Participate in these events when possible.

Communication

- Prepare reports on M&E findings, as required, working closely with financial controller, technical staff and implementing partners.
- Undertake regular visits to the field to support implementation of M&E and to identify where adaptations might be needed.
- Guide the regular sharing of the outputs of M&E findings with project staff, implementing partners and primary stakeholders.
- Make regular reports to the project steering committee, highlighting areas of concern and preparing the documentation for review at meetings.

Qualifications, experience and age required

At least 8-10 years of proven experience with:

- the logical framework approach and other strategic planning approaches;
- M&E methods and approaches (including quantitative, qualitative and participatory);
- planning and implementation of M&E systems;
- training in M&E development and implementation;

- facilitating learning-oriented analysis sessions of M&E data with multiple stakeholders;
- Information analysis and report writing.
- a solid understanding of rural development, with a focus on participatory processes, joint management, and gender issues;
- familiarity with and a supportive attitude towards processes of strengthening local organisations and building local capacities for self-management,
- willing to undertake regular field visits and interact with different stakeholders, especially primary stakeholders;
- computer skills;
- Age limit in between 30 to 40 years;

3.3 Program Officer (PO) One position

Job Descriptions:

1. Take lead to prepare and implement the program activities under SAGP with close coordination with the implementing partners (PMUs) and PIUs of Agriculture and Livestock departments.
2. Ensure achievement of the project targets under PCU through appropriate technical and facilitating activities using the modern as well as farmer's local knowledge and farming systems.
3. Initiate all procedural formalities for engaging local consultants for the project interventions required at PCU level.
4. Coordinate and strengthen linkage with PMUs, Consulting firms and other stakeholders to procure their support and leverage resources, and create synergy in the project.
5. Identify opportunities for interventions and strengthen input- output market linkages between local and apex market players.
6. Assist Project Coordinator in the preparation of monthly, quarterly and other special reports as required by the PSC with critical assessment of issues, learning, way forward and the work plan.
7. Act as the resource person in the related tasks under the program activities of PCU.
8. Carry out other tasks assigned by the Project Coordinator.

Qualification and experience

- Master's Degree in Agricultural Sciences,
- At least 8-10 years of experience in the progressive implementation of agricultural related projects,
- Computer Literacy - Microsoft Word, Excel and PowerPoint,
- Good spoken and written English,
- Having age limit from 30 to 40 years,

Baseline Data of Farmers of Crop Commodities in Target Districts
(Agriculture Component)

Crop Commodity	Total No. of Farmers to be trained
Chillies	60,570
Onion	85,690
Dates	19,870
Rice	238,455
Total	404,585

Year-wise Break-up of Number of Farmers to be trained against each
Target Crop Commodity under Agriculture Component of SAGP

Crop Commodity	No. of Farmers				
	Year-1	Year-2	Year-3	Year-4	Total
Chillies	7,755	7,755	7,755	7,755	31020
Onion	8,340	8,340	8,340	8,340	33360
Dates	1,995	1,995	1,995	1,995	7980
Rice	10,000	10,000	10,000	10,000	40000
Total	28,090	28,090	28,090	28,090	112,360

Base line data and year wise breakup of the Farmers Training Program (Institutional) – Livestock Component

District	Population (Census 2006)			Farmers in the district	Farmers on Training	
	Cattle + Buffalo	Sheep + Goat	Total		Livestock	AI
	(A)	(B)	(A+B)		(E x 0.1%)- 0.2	(B x 0.0053%) +0.18
Hyderabad	385,647	325,096	710,743	71,074	71	21
Badin	813,622	801,371	1,614,993	161,499	161	43
Thatta	777,731	513,497	1,291,228	129,123	129	41
Dadu	854,785	1,083,793	1,938,578	193,858	194	45
Jamshoro	282,472	585,939	868,411	86,841	87	15
Tando Allahyar	197,373	229,757	427,130	42,713	43	11
Matari	501,589	381,868	883,457	88,346	88	27
Tando Muhammad Khan	215,350	160,499	375,849	37,585	37	12
Mirpurkhas	435,881	733,934	1,169,815	116,982	117	23
Umerkot	295,150	685,393	980,543	98,054	98	16
Tharparker	798,593	3,402,998	4,201,591	420,159	420	43
Sanghar	693,778	780,163	1,473,941	147,394	147	37
Sukkur	408,128	297,061	705,189	70,519	70	22
Ghotki	528,498	448,411	976,909	97,691	97	28
Khairpur	1,021,302	1,009,637	2,030,939	203,094	203	54
Nawabshah	729,447	979,319	1,708,766	170,877	171	39
Naushero Feroz	865,288	871,986	1,737,274	173,727	174	46
Larkana	747,528	300,294	1,047,822	104,782	105	40
Qambar-Shahdaktot	604,749	511,351	1,116,100	111,610	111	32
Shikarpur	1,060,671	635,522	1,696,193	169,619	169	56
Jacobabad	976,423	894,089	1,870,512	187,051	187	52
Kashmore	386,576	286,366	672,942	67,294	67	21
Karachi	684,603	612,385	1,296,988	129,699	129	36
Sindh	14,265,184	16,530,729	30,795,913	3,079,591	3,075	760

Training for Livestock Extension/ Management/ New Technologies services*

	Year-1	Year-2	Year-3	Year-4	Year-5	Total
No. of days	7	7	7	7	7	
Farmers in a Batch	15	15	15	15	15	
Total Batches	20	45	50	50	40	205
Total trainees each year	300	675	750	750	600	3075

Training for Artificial Insemination Services **

	Year-1	Year-2	Year-3	Year-4	Year-5	Total
Days for each session	0	30	30	30	30	
Farmers per session	0	22	24	24	25	
Total sessions	0	8	8	8	8	32
Total trainees eah year	0	176	192	192	200	760

Expenses on Farmers Training Program (Institutional)

	Year-1	Year-2	Year-3	Year-4	Year-5	Total
(A) Livestock Extension etc						
Expenses per trainee (Rs.)	21000	21000	21430	21550	21650	
Total expenses (Rs.)	6300000	14175000	16072500	16162500	12990000	65700000
Total Million Rs.	6.30	14.18	16.07	16.16	12.99	65.7
(B) Artificial Insemination						
Expenses per trainee (Rs.)	0	24000	24000	24000	24000	
Total expenses (Rs.)	0	4224000	4608000	4608000	4800000	18240000
Total Million Rs.	0	4.22	4.61	4.61	4.80	18.24
(C) Seminar/Workshop etc	6540000	10000000	10000000	10000000	10000000	46540000
Total Million Rs.	6.54	10.00	10.00	10.00	10.00	46.54
Grand Total Million Rs.	12.84	28.40	30.68	30.77	27.79	130.48

*The training will be imparted in Sindh province as well as out of province

**The training will be imparted at newly established AI Training Center Tando Jam

Note:- (i) The expenses of training are included in cost tables (Annexure-IV) sheet A under the heading of "Training of Farmers" (A.3)

(ii) The minimum qualification of farmer is middle (class VIII) and must be a livestock owner.

Subject: MINUTES OF THE PDWP MEETING HELD ON 19-08-2013 UNDER THE CHAIRMANSHIP OF ADDITIONAL CHIEF SECRETARY (DEV) IN THE COMMITTEE ROOM OF P&D DEPARTMENT, GOVERNMENT OF SINDH

Agriculture Sector:

(List of Participants as Annexure-A)

Item No.01: Sindh Agriculture Growth Project (World Bank Assisted), Estimated Cost Rs.9994.137 Million) (ADP # 21, 2013-14).

The PDWP forum was briefed that the Government of Sindh started negotiation with World Bank, which conducted about 10 Field Missions and visited Agriculture and Livestock Departments from time to time since October 2011 and finally GOS and World Bank during Mission's last visit held on May 19-24, 2013 agreed on overall objectives and major components of the project, which are given as under:

2. Objectives:

"To improve the productivity and market access of small and medium size farmers and producers in the important commodity value chain and strengthen public sector institutions to enhance the enabling environment for sustained sectoral growth".

3. Major Components:

- a) Capacity building and institutional development (Rs.2443.98 million).
 - i. Capacity building of producers / farmers,
 - ii. Modernization of extension services and agriculture research,
 - iii. Strategic Planning for Agriculture Sector,
- b) Investment for Agriculture Growth (Rs.6355.210 million).
 - i. Horticulture Value Chain,
 - ii. Rice post harvest losses management,
 - iii. Dairy Value Chain,
 - iv. Demand Driven Investment Fund,
- c) Project Management, Monitoring and Evaluation (Rs.1361.250 million)

4. The subject project was included in ADP 2013-14 under Agriculture and Livestock Departments with implementation period of 5 years (F.Y 2013-14 to 2017-18) with the anticipation of loan amounting to US\$ 100 million from World Bank (IDA - Credit). PC-1 of the project at estimated cost of Rs.11410.70 million was discussed by Technical Committee three times i.e 23.07.2013, 29.07.2013 & 06.08.2013. Agriculture Department has submitted modified PC-1 at reduced cost of Rs.9994.137 million with bifurcation of Rs.6781.989 million and Rs.2845.192 million for Agriculture and Livestock respectively in pursuance of decisions of last Technical Committee.

5. The Chair enquired about the replies of all observations given in working paper, the Chief informed that the following observations are still to be discussed by the forum and responded properly by the ADs:

- i. In-house feasibility report,
- ii. Details of lump sum provisions,
- iii. Operational manual,
- iv. Composition of recruitment and procurement committees,
- v. Selection criteria for small and medium size farmers,
- vi. Details of civil works components of livestock department (drawing, plan and rough cost estimates duly vetted by DG (Design) W&S Department.
- vii. Cost variation in the total amount for TPM, physical, & price contingency.

Mujahid

6. Representative of the sponsor department informed that the in-house feasibility and copy of operational manual have been prepared and same were provided during the meeting; however the details of lump sum provisions were not properly addressed in the replies of the working paper. The compositions of recruitment and procurement committees were discussed and it was proposed that one representative from World Bank may also be included in the recruitment committee. The procurement committee may be constituted as per SPPRA rules, the project procurement process will also follow the guidelines given by World Bank in operational manual. PMUs will be responsible for recruitment of project staff and procurement part of the project.

7. Regarding the selection criteria; applications will be invited through news papers from the beneficiary farmers having 1 to 25 acres for small farmers and 26 to 50 acres for medium size farmers and will be selected on first come first serve basis. The rough cost estimates for civil works were provided during the meeting, which were not vetted by DG (Design) and it was informed by the representative of Livestock Department that these works will be executed by the consultants therefore, DG (Design) has refused to vet the design and cost estimates, however the rates have been worked out on the basis of Sindh Schedule Rates (SSR) 2012.

8. Regarding variation in the amount of TPM, physical contingency and price escalation, the forum suggested that the cost of TPM and physical contingency should be at 1% and 2% respectively, however, price escalation must be worked out as per Federal Government's formula.

9. Chief (Agriculture) informed that as per existing policy the AD has to initiate a Summary for C.M. Sindh for final approval of scheme costing more than Rs.200.0 million. The Secretary, Agriculture Department said that since the project is proposed to be funded by World Bank loan, therefore its approval was already sought from the Chief Minister Sindh before negotiation. Chief further informed that both ADs have to establish PMUs for which GOS has agreed with the World Bank to provide Rs.30.00 million as retroactive financing till final approval of the project and release of funds by World Bank. Both Administrative Departments were also asked to finalize and furnish the procurement plans to P&D Department as per requirement of World Bank.

10. The Chair opined that the approval process of the project has to be completed as soon as possible since the Board meeting of the World Bank is scheduled to be held in September 2013. Both ADs were asked by the chair to ensure compliance of the observations given in the working paper and furnish the requisite copies of modified PC-1 so that it can be forwarded to the Federal Government for its approval by CDWP/ECNEC.

11. After detailed discussions, following decisions were taken:

Decisions:

- i. The Project was finally cleared at the total cost of Rs.9813,076 million with bifurcation of Rs.6955,338 million for Agriculture Department and Rs.2857,738 million for Livestock Department for five years period from 2013-14 to 2018-19.
- ii. Both ADs will furnish modified PC-1 in the light of above discussions and decisions for onward submission to CDWP/ECNEC for final approval.

Aijabon

LIST OF PARTICIPANTS

1. Planning & Development Department

- Mr. Arif Ahmed Khan
Additional Chief Secretary (Dev)
- Ms. Rehana Ghulam Ali Memon
Secretary (Development)
- Mr. Farooq Azam Memon
Special Secretary (Dev)
- Engr. Abdul Fattah Tunio
Chief (Agriculture/ SI)
- Mr. Shahab-u-ddin Memon
Chief (Livestock & Fisheries)
- Mr. Irshad Ali Talpur
Assistant Chief (Development)
- Mr. Akhtar Hussain
Planning Officer (Agriculture)
- Mr. Nazish Muhammad Khan
Planning Officer (Agriculture)
- Dr. Hafeez-ur-Rehman Kalhoro
Planning Officer (Livestock)

In Chair

2. Agriculture Department.

- Mr. Iqbal Durrani
Secretary (Agriculture)
- Mr. Agha Abdul Qadir Tareen
Additional Secretary (Tech).
- Mr. M. Azam Channa
Director (Planning & Monitoring Cell)

3. Livestock & Fisheries Department

- Mr. Zafar Iqbal Shaikh
Secretary
- Dr. Abdul Qadir Junejo
Director, Livestock
- Dr. Siraj Ahmed Isani
Director (Animal Husbandry)

4. Finance Department

- Mr. Mumtaz Ali Gopang
Deputy Secretary (Dev)

WORKS AND SERVICES DEPARTMENT
GOVERNMENT OF SINDH

Rough Cost Estimate

Name of work: - ESTABLISHMENT OF ARTIFICIAL
INSEMINATION TRAINING FACILITY
CENTRE AT TANDO JAM, DISTRICT
HYDERABAD.
(UNDER WORLD BANK PROGRAMME).

Estimated Cost: - 108.187 (Million)


Reference of Scheme Under World Bank Programme.


Date of preparation: - Jul-13

Prepared in the Office of the
Executive Engineer Provincial Buildings Division Hyderabad
Phone No. 022-9200039

YEARLY ESCALATION SHEET.

S.No.	Year	Phasing of estimated cost in (M)	Yearly Escalation Rate	Escalation amount in (M)	Total Amount in (M)
1	2013-14	108.187	...	.....	108.187
	TOTAL	108.187		....	108.187


Assistant Engineer
Provincial Buildings Sub-Division
No.I Hyderabad



Executive Engineer
Provincial Buildings Division
Hyderabad.


ABSTRACT.

Name of Scheme

ESTABLISHMENT OF ARTIFICIAL INSEMINATION
TRAINING FACILITY CENTRE AT TANDO
JAM, DISTRICT HYDERABAD.
(UNDER WORLD BANK PROGRAMME).

No.	Name of Building	Cost of Each Unit	No. of Units Required	Total Cost	Remarks.
1	MAIN BUILDING.	55781208	1	55781207	
2	ANIMAL SHED. (2 NOS).	6529086	1	6529085	
3	CATTLE CRUSH.	309240	1	309239	
4	GUARD ROOM.	528285	2	1056569	
5	COMPOUND WALL I/C STEEL GATES (2 NOS).	8798190	1	8798190	
5	UNDER GROUND TANK. (20,000)	1020000	1	1020000	
7	OVER HEAD TANK. (10,000)	1150000	1	1150000	
			Total	<u>74644290</u>	
	Add 15% For External Development.			11196644	
	Earth Filling.	(D.W.E Estimate Attached)		14923325	
			Total	<u>100764259</u>	
		Says Rs in Million.		100.764 (M)	
	Add: 2% Contingency.			2.015	
	Add: 1% T.P.M.			1.008	
	Add: D.N. For WAPDA.			3.500	
	Add: D.N. For SUI-GAS.			0.500	
	Add: D.N. For WASA.			0.400	
			G.Total	<u>108.187 (M)</u>	


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Provincial Buildings Sub-Division
No.1 Hyderabad.


Executive Engineer
Provincial Buildings Division
Hyderabad.

Name Of Scheme:-

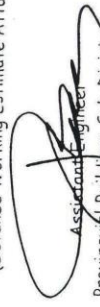
DETAILED SHEET


ESTABLISHMENT OF ARTIFICIAL INSEMINATION TRAINING FACILITY CENTRE AT TANDO JAM, DISTRICT HYDERABAD. (UNDER WORLD BANK PROGRAMME).

Sr. No.	Name of Building	Plinth Area	Cost of Construction		Int: W/S & S/F		Int: E. I. Work		Sui Gas		Total
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	
1	2	3	4	5	6	7	8	9	10	11	12
1 MAIN BUILDING.											
i	Foundation. (G+2)	5750 Sft	920.00	5290000	...	...	...	...	...	...	5290000
ii	Ground Floor.	5750 Sft	1100.00	6325000	155.00	891250	140.00	805000	50.00	287500	8308750
iii	Add 40% Extra for Extra Height.	5750 Sft	808.00	4646000	...	...	...	...	...	...	4646000
iv	First Floor.	5750 Sft	1180.00	6785000	155.00	891250	140.00	805000	50.00	287500	8768750
v	Second Floor.	4800 Sft	1260.00	6048000	155.00	744000	140.00	672000	50.00	240000	7704000
vi Add Diff: Cost of Material.											
a	Granite Tiles (Floor + Dado).	23281 Sft	470.00	10941835	...	...	...	...	...	...	10941835
b	Aluminium Doors.	1088 Sft	187.11	203576	...	...	...	...	...	...	203576
c	Aluminium Windows.	1584 Sft	299.14	473838	...	...	...	...	...	...	473838
d	False Ceiling.	11147 Sft	202.35	2255494	...	...	...	...	...	...	2255494
e	Glazed Tile Floor.	1269 Sft	122.90	155899	...	...	...	...	...	...	155899
f	Glazed Tile Dado.	4274 Sft	142.83	610384	...	...	...	...	...	...	610384
g	Matt Finish.	44268 Sft	23.65	1046938	...	...	...	...	...	...	1046938
h	Jung Shahi Stone.	22868 Sft	184.00	4207666	...	...	...	...	...	...	4207666
i	Vertical Blinds.	2184 Sft	91.11	198984	...	...	...	...	...	...	198984
j	Bitumen-Felt Paper.	8289 Sft	53.64	444622	...	...	...	...	...	...	444622
k	Kitchen Cabinet.	70 Sft	950.00	66500	...	...	...	...	...	...	66500
l	Stair Case Steel Railing.	114 Sft	4035.00	457973	...	...	...	...	...	...	457973
										Total I to VI	55781208

No.	1	2	3	4	5	6	7	8	9	10	11	12
	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
2 ANIMAL SHED. (2 NOS).												
i Foundation.	760.00	1682640										1682640
ii Ground Floor.	1100.00	2435400	155.00	309960								3199230
iii Add 40% Extra for Extra Height.	744.00	1647216										1647216
											Total	6529086
3 CATTLE CRUSH.												
i Foundation.	760.00	91200										91200
ii Ground Floor.	1100.00	132000	155.00	16800								173400
iii Add 20% Extra for Extra Height.	372.00	44640										44640
											Total	309240
4 GUARD ROOM.												
i Foundation.	760.00	155800										155800
ii Ground Floor.	1100.00	225500	155.00	28700								296225
iii Add 20% Extra for Extra Height.	372.00	76260										76260
											Total	528285
5 COMPOUND WALL I/C STEEL GATES (2 NOS).												
i Compound Wall.	1700.00	4165000										4165000
ii Add 20% Extra for Extra Height.	340.00	833000										833000
iii Colour Create. (2450 x 10 x 2)	41.22	2019780										2019780
iv Small Iron Work. (Fencing Arrow), (2450 x 2 x 6 / 112)	6420.61	1685410										1685410
iii Steel Gate.	47500.00	95000										95000
											Total	8798190
6 Under Ground Tank.	51.00	1020000										1020000
7 Over Head Tank.	115.00	1150000										1150000
8 Earth Filling.												14923325

(Detailed Working Estimate Attached)


 Assistant Engineer
 Provincial Buildings Sub-Division
 No. 1 Hyderabad.



 Executive Engineer
 Provincial Buildings Division
 Hyderabad.

ESTABLISHMENT OF ARTIFICIAL INSEMINATION TRAINING FACILITY CENTRE AT
TANDO JAM, DISTRICT HYDERABAD.
(UNDER WORLD BANK PROGRAMME).
(Measurement Sheet.)

S.No.	Item of work.	No.	Length	Width	Depth/Height	Quantity
PART "A" CIVIL WORK.						
1	<u>Granite Tiles...</u>					
a)	<u>Flooring.</u>					
	T.Hall / P.Hall	2	16.00	20.00		640
	Offices / Lab / Bed Rooms	20	12.00	14.00		3360
	Rooms	4	16.00	14.00		896
	Lib: / Dinng: Hall	2	30.00	20.00		1200
	Kit:	1	12.00	12.00		144
	Store	1	7.50	12.00		90
	Record / Store:	3	6.00	6.75		122
	Store	1	14.00	20.00		280
	Dress:	8	6.00	6.00		288
	Ver:	3	79.00	8.00		1896
	--	3	79.25	6.00		1427
	--	3	32.00	18.00		1728
	Stair Steps	24	6.00	1.00		144
	Plate form	1	20.00	20.00		400
	Guard Room	1	10.00	12.00		120
						Total <u>12734</u> Sft
b)	<u>Dado.</u>					
	T.Hall / P.Hall	2	2	(16.0+20.0)	3.00	432
	Offices / Lab / Bed Rooms	2	20	(12.0+14.0)	3.00	3120
	Rooms	2	4	(16.0+14.0)	3.00	720
	Lib: / Dinng: Hall	2	2	(30.0+20.0)	3.00	600
	Kit:	2	1	(12.0+12.0)	3.00	144
	Store	2	1	(7.50+12.0)	3.00	117
	Record / Store	2	3	(6.0+6.75)	3.00	230
	Store	2	1	(14.0+20.0)	3.00	204
	Dress:	2	8	(6.0+6.0)	3.00	576
	Ver:	2	3	(79.0+8.0)	3.00	1566
	--	2	3	(79.25+6.0)	3.00	1535
	--	2	3	(32.0+18.0)	3.00	900
	Stair Steps	1	24	6.00	0.50	32
	Plate form	2	1	(20.0+20.0)	3.00	240
	Guard Room	2	1	(10.0+12.0)	3.00	132
						Total <u>10547</u> Sft
	Total Qty: (A + B)			(12734 + 10547)		<u>23281</u> Sft
2	<u>Aluminium Door...</u>					
	Doors	32	4.00	8.50		1088
						Total <u>1088</u> Sft
3	<u>Aluminium Window...</u>					
	Window	48	6.00	5.50		1584
						Total <u>1584</u> Sft

S.No.	Item of work.	No.	Length	Width	Depth/Height	Quantity
4	<u>False Ceiling...</u>					
	T.Hall / P.Hall	2	16.00	20.00		640
	Offices / Lab / Bed Rooms	20	12.00	14.00		3360
	Lib: / Dinng: Hall	2	30.00	20.00		1200
	Room	4	14.00	16.00		896
	Ver:	3	79.00	8.00		1896
	"	3	79.25	6.00		1427
	"	3	32.00	18.00		1728
	Total					11147 Sft
5	<u>Glazed Tiles Flooring...</u>					
	Lav:	1	14.00	20.00		280
	Baths	8	6.00	6.25		300
	"	7	6.00	6.75		284
	"	8	6.75	7.50		405
	Total					1269 Sft
6	<u>Glazed Tiles Dado...</u>					
	Lav:	2	1.00	(14.0+20.0)	7.00	476
	Baths	2	8.00	(6.0+6.25)	7.00	1372
	"	2	7.00	(6.0+6.75)	7.00	1250
	"	2	8.00	(6.75+7.50)	7.00	1596
	Total					4694 Sft
	<u>Deduction</u>					
	Doors	24	2.50	7.00		420
	Total					420 Sft
	Net Qty:			(4694 - 420)		4274 Sft
7	<u>Matt Finish...</u>					
a)	T.Hall / P.Hall	2	2	(16.0+20.0)	12.00	1728
	Offices / Lab / Bed Rooms	2	20	(12.0+14.0)	12.00	12480
	Rooms	2	4	(16.0+14.0)	12.00	2880
	Lib: / Dinng: Hall	2	2	(30.0+20.0)	12.00	2400
	Kit:	2	1	(12.0+12.0)	12.00	576
	Store	2	1	(7.50+12.0)	12.00	468
	Record / Store	2	3	(6.0+6.75)	12.00	918
	Store	2	1	(14.0+20.0)	12.00	816
	Dress:	2	8	(6.0+6.0)	12.00	2304
	Ver:	2	3	(79.0+8.0)	12.00	6264
	"	2	3	(79.25+6.0)	12.00	6138
	"	2	3	(32.0+18.0)	12.00	3600
	Guard Room	2	1	(10.0+12.0)	12.00	528
	Total					41100 Sft
b)	Lav:	2	1.00	(14.0+20.0)	12.00	816
	Baths	2	8.00	(6.0+6.25)	12.00	2352
	"	2	7.00	(6.0+6.75)	12.00	2142
	"	2	8.00	(6.75+7.50)	12.00	2736
	Total					3168 Sft
	Total Qty: (A + B)			(41100 + 3168)		44268 Sft

S No.	Item of work.	No.	Length	Width	Depth/Height	Quantity
8	<u>S. F. Jung Shahi Stone...</u>					
	Ground Floor O/s the Bldg:	1	1.00	471.50	20.50	9666
	First Floor O/s the Bldg:	1	1.00	471.50	12.50	5894
	Second Floor O/s the Bldg:	1	1.00	471.50	15.50	7308
						Total <u>22868 Sft</u>
9	<u>Vertical Blinds...</u>					
	Windows	48	7.00	6.50		2184
						Total <u>2184 Sft</u>
10	<u>Bitumen Felt Paper...</u>					
	<u>As Per Covered Area.</u>					
	Main Building					5750
	Animal Shed					2214
	Guard Room					205
	Cattle Crush					120
						Total <u>8289 Sft</u>
11	<u>Kitchen Cabinet...</u>					
	Above Shelf	1	14.00	2.00		28
	Below Shelf	1	14.00	3.00		42
						Total <u>70 Sft</u>
12	<u>Stair Case Railing...</u>					
	Stair Case	3	x	16.00		48
	Balcony	1	x	65.50		66
						Total <u>114 Sft</u>


 Assistant Engineer
 Provincial Buildings Sub-Division
 No. 11 Hyderabad.

WORKS AND SERVICES DEPARTMENT

GOVERNMENT OF SINDH

DETAIL WORKING ESTIMATE

Name of Work: ESTABLISHMENT OF ARTIFICIAL
INSEMINATION TRAINING FACILITY
CENTRE AT TANDO JAM, DISTRICT
HYDERABAD.
(UNDER WORLD BANK PROGRAMME).

Estimated Cost: Rs. 14,923,325


PREPARED IN THE OFFICE OF THE
EXECUTIVE ENGINEER PROVINCIAL BUILDINGS DIVISION
HYDERABAD PHONE NO. 022- 9200039

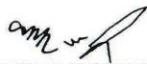
ESTABLISHMENT OF ARTIFICIAL INSEMINATION TRAINING
FACILITY CENTRE AT TANDO JAM, DISTRICT HYDERABAD.
(UNDER WORLD BANK PROGRAMME).

(A B S T R A C T)

Sr. No.	Name of Item.	Quantity	Rate	Unit	Amount.
1	PART "A" CIVIL WORK				
1	Supplying and filling sand under floor and plugging in to walls (SI No:29 P-25)	780015 Cft.	1141.25	%Cft	8901921
2	Carriage of 100 cft / 5 tons of all material like stone aggr: spawl, coal, lime, surkhi, etc B.G.rail fastening points and crossing bridges girders, pipes, sheets, rails, M.S. Bars etc or 1000 Nos. bricks 10"x5"x3" or 1000 Nos. tiles 12"x6"x2" or 150 cft of timber or 100 Maunds of fuel wood by truck or any other means owned by the contractor (SINO.1 P-1) 6 miles	780015 Cft.	771.96	%Cft	6021404


Total Rs. 14,923,325


ASSISTANT ENGINEER
PROVINCIAL BUILDINGS SUB-DIVISION-I
HYDERABAD.


EXECUTIVE ENGINEER
PROVINCIAL BUILDINGS DIVISION
HYDERABAD.

ESTABLISHMENT OF ARTIFICIAL INSEMINATION TRAINING
FACILITY CENTRE AT TANDO JAM, DISTRICT HYDERABAD.
(UNDER WORLD BANK PROGRAMME).

(Measurement Sheet.)						
S.No.	Item of work.	No.	Length	Width	Depth/Height	Quantity
1	PART "A" CIVIL WORK.					
1	S/F Sand Under Floor... Open Area	1	698.00	298.00	3.75	780015
						Total <u>780015</u> Cft
2	Carriage of 100 Cft / 5 Tons... Qty: Same as item No. 1 above					780015
						Total <u>780015</u> Cft



 Assistant Engineer
 Provincial Buildings Sub-Division
 No. I Hyderabad.


RATE ANALYSIS

S/F Jung Shahi Stone Size (12"x6") laid over 3/4" thick Cement sand mortar. 1:3 i/c cost of white cement and pigment for filling joints the cost also i/c chieseling, cartage curing i/c polishing (Chemical) etc complete.

		<u>UNIT 100 SFT.</u>			
A) MATERIALS.					
1	Stone Tile	1 x 100.00 x 0.50	=		50.00
2	Wastage 10%		=		5.00
				Total	55.00
	Tiles 110 Sft	90 P.Sft.	Rs:		9900.00
	Cement Bags 2.25 Bags	470 P.Bags	Rs:		1057.50
	H/Sand 4.50 Cft.	35 P.Cft.	Rs:		157.50
	White Cement i/c Pigment	L.S	Rs:		150.00
				Total	Rs: 11265.000
				Add 10% Contractor Profit	Rs: 1126.50
				Total (A)	Rs: 12391.50

B) LABOUR					
1	Masson	4 Nos.	850.00	Each	Rs. 3400.00
2	Helper	3 Nos.	400.00	Each	Rs. 1200.00
3	Behshiti	1 No	400.00	Each	Rs. 400.00
				Total Rs.	5000.00
				Add 10% sundress Rs.	500.00
				Total Rs.	5500.00
				Add 10% Contractor Profit Rs.	550.00
				Total Rs.	6050.00
Total of (A+B) (12391.50 + 6050.00) =				30057.50	= 184.42
					100.00
				Say Rs.	184.00
					P.Sft


 Assistant Engineer
 Provincial Buildings Sub-Division-I
 Hyderabad.


 Executive Engineer
 Provincial Buildings Division
 Hyderabad

RATE ANALYSIS

S. NO	DESCRIPTION	RATE.
-------	-------------	-------

Providing and laying Master granite tiles fully glazed finish jointed in white cement and laid over 1:2 grey cement sand mortar 3/4" thick in/c finishing & filling of joint with slurry of white cement or tile grout in desired shape in/c cutting of tiles to proper profile (on floor or facing) size 24" x 24" x 1/4".

A) MATERIAL:

Master Granite tiles 24" x 24"

Envierete

In/c 10% Wastage. 110 Sft 330.00 P.Sft Rs: 36300.00

White Cement. 0.10 Cwt 750.00 P.Bag Rs: 75.00

Grey Cement. 2.16 Cwt 450.00 P.Bag Rs: 972.00

Sand Cushion. 5.20 Cwt 25.00 P.Cft Rs: 130.00

Pigment Tile Grout. 1 Lbs 300.00 P.Lbs Rs: 150.00

Total Rs 37627.00

Add. 10% Contractor Profit Rs 3762.70

(A) TOTAL Rs 41389.70**B) LABOUR:**

i Tile Fixer Skilled 2 Nos 900.00 Each Rs: 1800.00

ii Coolie. 4 Nos 500.00 Each Rs: 2000.00

iii Bhisti. 2 Nos 400.00 Each Rs: 800.00

Total Rs 4600.00

Add. 10% Sundries Rs 460

Total Rs 5060.00


Add. 10% Contractor Profit Rs 506.00

Total Rs 5566.00

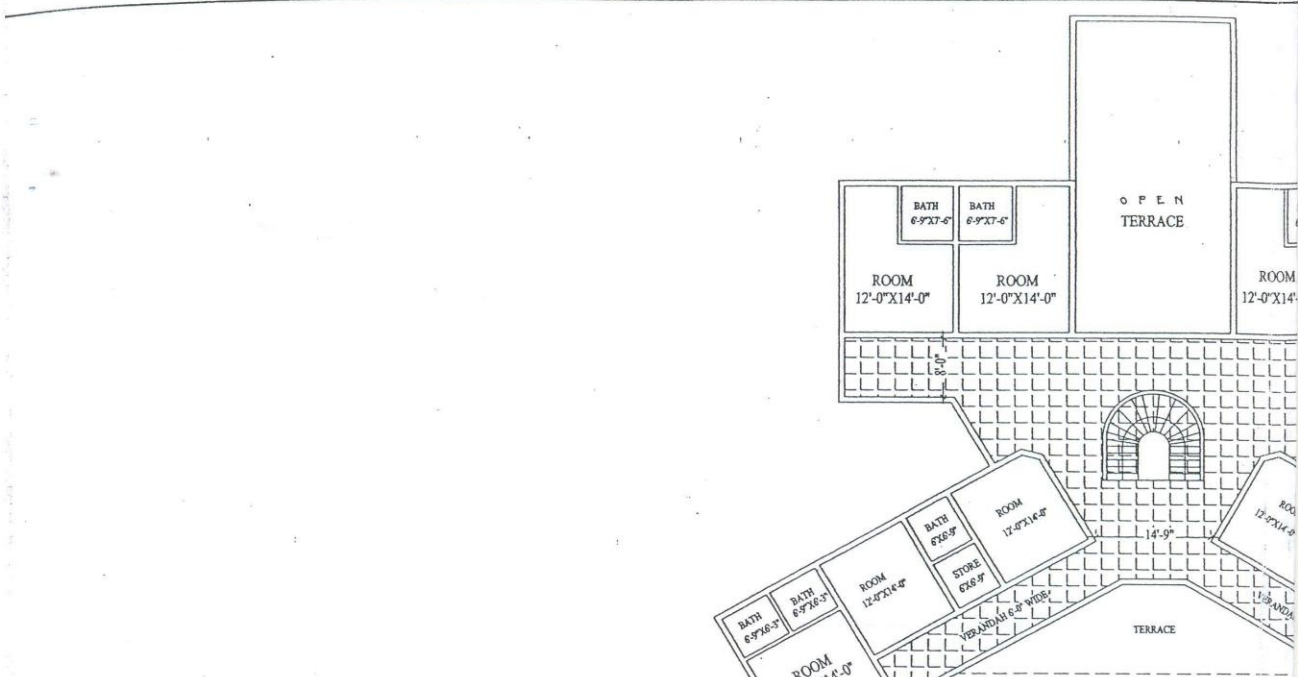
TOTAL (A + B) Rs 46955.70

46955.70 / 100 Rs 469.56

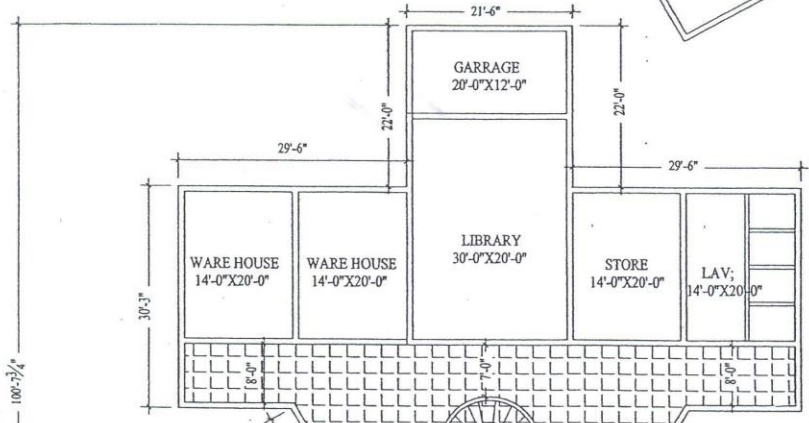
Says Rs 470.00


Assistant Engineer
Provincial Buildings Sub-Division-I
Hyderabad.

Executive Engineer
Provincial Buildings Division
Hyderabad

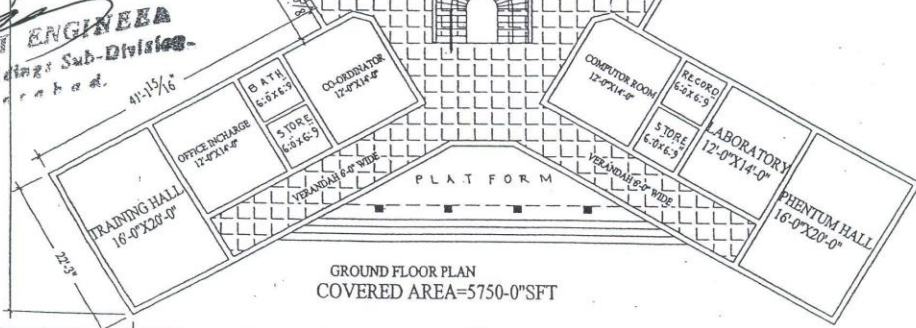


SECOND FLOOR PLAN
COVERED AREA=4800-0"SFT



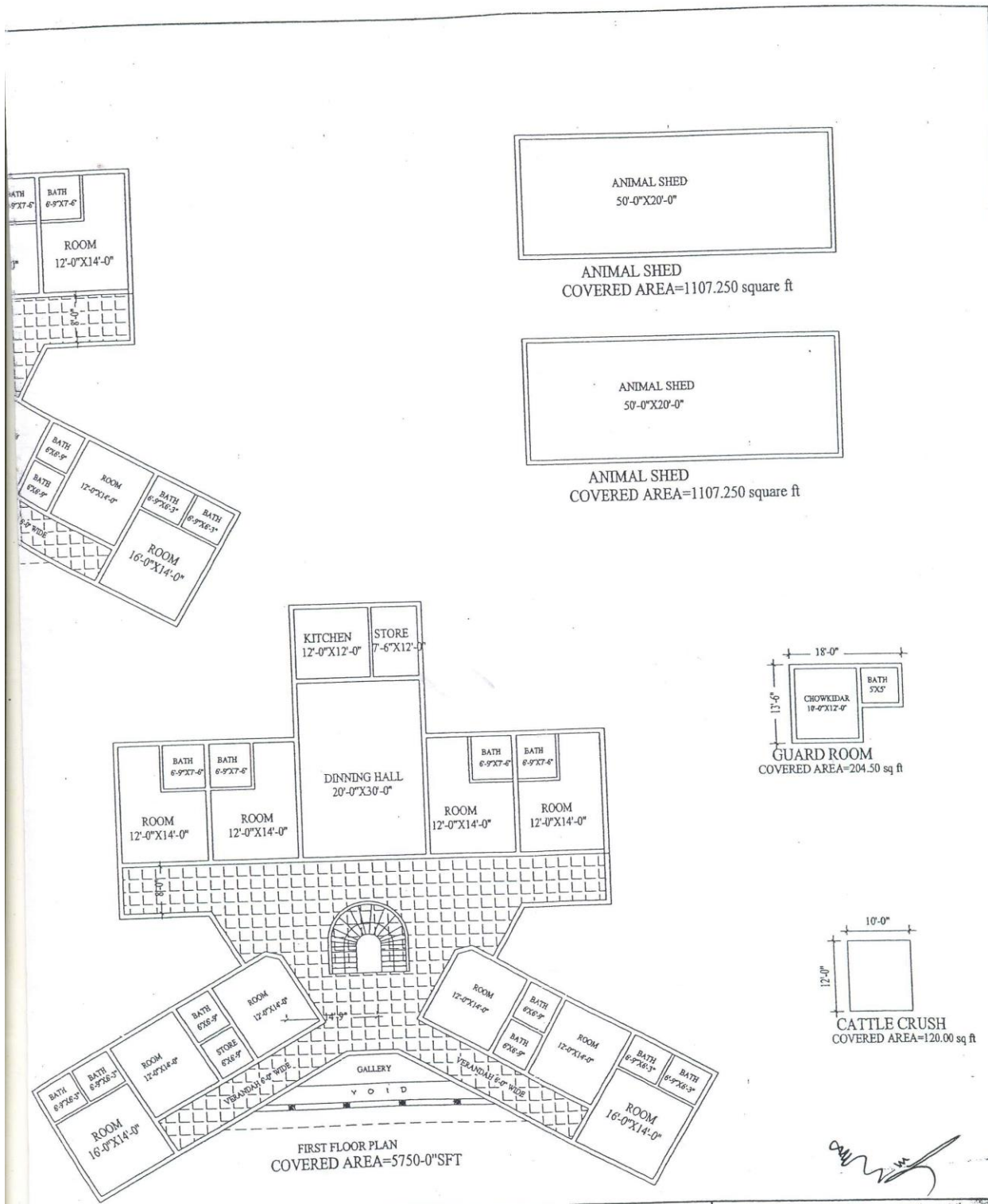
GROUND FLOOR PLAN
COVERED AREA=5750-0"SFT

Resistant ENGINEER
Practical Building Sub-Division
Government



COVERED AREA
 N BUILDING G-FLOOR=5750-0" SFT
 N BUILDING F-FLOOR=5750-0" SFT;
 N BUILDING S-FLOOR=4800-0" SFT;
 MAL SHED=2214-0" SFT;
 TLE CRUSH=120-0" SFT;
 WKIDAR=204-30 SFT;

ESTABLISHMENT OF ARTIFACAL INSEMINATI AT TANDO JAM



ON TRAINING FACILITY

LINE PLAN
SCALE- 1=3/32

OFFICE OF THE CHIEF ARCHITECT	
WORKS & SERVICE DEPT. GOVT. OF SINDH, HYDERABAD	
DRG. NO. Provincial	DATE:
DELT BY	CHIEF ARCHITECT
DRAWN BY	
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GOVERNMENT OF PAKISTAN
PLANNING COMMISSION
M/O PLANNING, DEVELOPMENT & REFORMS
(Food and Agriculture Section)

No.131(431)PC/AGR/2013


Islamabad, the October 24, 2013

Subject: Minutes of the pre-CDWP meeting "Sindh Agriculture Growth Project"

I am directed to enclose herewith duly approved Minutes of the pre-CDWP on the subject project.

2. The PC-I may be modified in the light of the decisions of pre-CDWP meeting and the Minutes may also be incorporated in the modified PC-I.

Encl: As above


(Asif Khan)
Assistant Chief

Member, Food & Agriculture, Planning Commission

Mr. Dildar Ahmed Bhatti, Chief (Economic Appraisal Section), M/o Planning, Development & Reforms

Mr. Abdul Qadir Tareen, Addl. Secretary (Tech), Sindh Agriculture Supply & Price Department, Government of Sindh

Mr. Mumtaz Ahmed, Deputy Secretary, Ministry of Finance

Dr. Zahid Iqbal Rajput, V.O. / Deputy Project Director, Livestock & Fisheries Department, Government of Sindh

CC:

- i) SPS to Secretary, Planning & Development Division.
- ii) PS to Addl. Secretary, Planning & Development Division.

MINUTES OF THE PRE-CDWP MEETING HELD ON 04-10 -2013

SUBJECT: SINDH AGRICULTURE GROWTH PROJECT

A Pre-CDWP meeting under the Chairmanship of member (F&A) was held on 04.10.2013 to discuss issues identified in the subject project. The list of participants is enclosed.

2. Member (F&A) asked the representatives of "Agriculture Supply & Price Department" and "Livestock & Fisheries Department", Government of Sindh, to brief about the project. Additional Secretary, Government of Sindh explained in detail, various components of the project. Thereafter, Deputy Chief (F&A) presented technical observations on the project. The Member (F&A) stated that the project activities should be designed and implemented in such a manner to make the project deliverable. He quoted the example of another World Bank assisted "Training and Visit" which could not deliver as visualized before its implementation. He stated that impact of the project should be there after its completion. It should be deliverable one. After detailed deliberation following decisions made. The sponsors were asked to modify the PC-I document in the light of discussions and re-submit it for consideration of the forthcoming CDWP meeting.

Decision:

- i) Price contingencies should be deleted from the project.
- ii) The component of **feasibility studies for future investment** was not supported. The sponsors were asked to request donor for Technical Assistance (TA) separately for carrying out feasibility studies proposed in the PC-I. This item will be deleted from the present PC-I.
- iii) Number of tools, equipment and technology packages to be provided to the farmers on subsidized rates should be increased and financial allocation earmarked for this purpose should be enhanced.
- iv) Year-wise break-up of the number of farmers to be trained should be given in the PC-I. Base line data in this regard can be obtained from secondary sources such as provincial Revenue Department.
- v) Provision of Artificial Insemination services should be so designed that it is available to every farmer in the area. Deficit areas should be given priority.

- vi) Project allowance has been disallowed by federal government. The same may be deleted from the PC-I.
- vii) Number of Project Implementation Units (PIU) should be reduced. Each PIU should consist of staff from both agriculture and livestock related activities.
- viii) Number of vehicles demanded be reduced.
- ix) Rupees 84.515 million for third party evaluation. This is on very high side. The same may be rationalized.
- x) Sponsors will modify PC-I in the light of the above decisions and re-submit for consideration of the forthcoming CDWP meeting.

LIST OF PARTICIPANTS

**SINDH AGRICULTURE GROWTH PROJECT
4th October, 2013**

Sr.#	Name and Designation	Office / Department
1 ✓	Mr. Muhammad Javed Malik Member (Food & Agri.)	Ministry of Planning, Development and Reforms
2 ✓	Mr. Dildar Ahmed Bhatti, Chief	Economic Appraisal Section, Ministry of Planning, Development and Reforms
3 ✓	Mr. Abdul Qadir Tareen Additional Secretary (Tech)	Sindh Agriculture Supply & Price Department, Government of Sindh.
4	Mr. M. Aslam Nadeem Deputy Chief	Food and Agriculture Section, Ministry of Planning, Development and Reforms
5	Mr. Shehzad Ahmed Baloch Deputy Chief	Food and Agriculture Section, Ministry of Planning, Development and Reforms
6	Dr. Arif Rehman, Deputy Chief	Food and Agriculture Section, Ministry of Planning, Development and Reforms
7 ✓	Mr. Mumtaz Ahmed, Deputy Secretary	Ministry of Finance
8 ✓	Dr. Zahid Iqbal Rajput, V.O. / Deputy Project Director	Livestock and Fisheries Department, Government of Sindh
9	Mr. Shaukat Bashir Research Officer	Food and Agriculture Section, Ministry of Planning, Development and Reforms