TVET SECTOR SKILLS GAP ANALYSIS

Bahawalpur, Lodhran, Multan and Muzaffargarh
South Punjab, Pakistan

JULY 2018

USAID-Punjab Youth Workforce Development (PYWD) Project

LIST OF ACRONYMS

BISP	Benazir Income Support Program
CCC	Career Counseling Center
CCS	Career Counseling Services
CO	Community Organization
CBO	Community-based Organization
COP	Chief of Party
COR	Contracting Officer's Representative
CPEC	China Pakistan Economic Corridor
CPI	Community Physical Infrastructure
CV	Curriculum Vitae
CVE	Counter Violent Extremism
DAE	Diploma of Associate Engineering
DO	Development Objective
FGD	Focus Group Discussion
FY	Fiscal Year
GCC	Gulf Cooperation Council
GIZ	Gesellschaftfür Internationale Zusammenarbeit
GDP	Gross Domestic Product
GoP	Government of Pakistan
GoPb	Government of Punjab
HDI	Human Development Index
HVACR	Heating Ventilation Air Conditioning & Refrigeration
IR	Intermediate Result
IRM	Institute for Rural Management
LTTA	Long Term Technical Assistance
MEL	Monitoring, Evaluation & Learning
MFIs	Micro Finance Institutions
MoC	Memorandum of Cooperation
MoU	Memorandum of Understanding
M&E	Monitoring & Evaluation
MIS	Management Information System
NQF	National Qualification Framework
NAVTTC	National Vocational & Technical Training Commission
NGOs	Non-Governmental Organizations
NOC	No Objection Certificate
NSIS	National Skills Information System
PSDF	Punjab Skill Development Fund
PwDs	Persons with Disabilities
PTIs	Partner Training Institutes
PTTB	Punjab Trade Testing Board
PVTC	Punjab Vocational Training Council
PYWD	Punjab Youth Workforce Development
QAB	Qualification Awarding Body
RC	Reflect Circle
TTB	Trade Testing Board
TVET	Technical & Vocational Education and Training
TEVTA	Technical Education & Vocational Training Authority
TEVTIs	Technical Education & Vocational Training Institutions/Institutes
UC	Union Council
UAE	United Arab Emirates
UNDP	United Nations Development Program
USAID	United States Agency for International Development
VTIs	Vocational Training Institutes

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EXECUTIVE SUMMARY

The USAID-Pakistan Youth Workforce Development (PYWD) Project, under implementation by Louis Berger, undertook an in-depth assessment of the current skills gap in South Punjab. The objective of the exercise was to further analyze the employability prospects (wage- and self-employment) in the Project's prioritized industries and districts (i.e., Multan, Muzaffargarh, Bahawalpur, and Lodhran), while also building upon the findings of earlier assessments done by various Technical and Vocational Education and Training (TVET) stakeholders.

A total of seven prior studies undertaken in this area were selected for review, each with a different scope and coverage, but all having some relevance to the PYWD Project. The PYWD team conducted a brief analysis of each study, noting its findings and relevance to the Project. However, it was observed that most of the studies were relatively old (2011-2013), making it unclear if findings were still applicable, particularly with regard to current demanded trades in key sectors. In cases where the studies focused on other districts of Pakistan, it was also not certain as to whether or not the findings would apply to the Project's focus districts, specifically if the same trades were still demanded. Hence, the PYWD Project supplemented its literature review with primary research including questionnaires that were developed and completed by the private sector; meso-level industry associations and TVET provider, followed by Focus Group Discussions (FGDs) with key stakeholders in priority sectors to validate the findings.

The validation of each identified trade/skill was provided with each study along with outcomes and conclusions. The overall conclusion was that Project-focused districts are agrarian-based in which proper training—particularly short courses—could lead to a significant number of youth being employed while also generating income for their families. Appropriate interventions in agriculture could also boost employment prospects in the interdependent manufacturing and service industries. Self-employment could also play a significant role in the employability of the trainees. Microfinance could be instrumental in facilitating self-employment and the establishment of micro-enterprises. Besides technical training (appropriate curricula, teacher and management training), the assessment also confirmed that training in soft skills is limited, despite its importance for each of these trades/skills.

After studying the demand side, the PYWD Project analyzed the supply side to better understand the gaps in offerings. It mapped the TVET sector at the macro level and conducted an institutional gap analysis of all 118 registered training institutes currently providing training in the focused districts. Around eighteen (18) sectors/trades were found to be offered in PYWD Project's focused districts by the training institutes. Many skills demanded by the industry, however, were either not being offered and/or were being offered in insufficient numbers. In addition, deficiencies in equipment and resources at training institutes were also identified, limiting their ability to adequately prepare trainees for demanded jobs.

Finally, the analysis provided a comprehensive overview of the major challenges, potential opportunities, and way forward given the findings of this study as well as other areas of interest for the expansion of the Project at the national level. In particular, the demands and requirements of the industry (formal and informal) are helping further steer project interventions towards identifying the required vocational, technical, and soft skills required to help increase placement outcomes in the targeted districts. The gap analysis has identified challenges and opportunities for youth employability (wage/self-employment), and is providing a foundation for creating and enhancing market linkage strategies for wage/self-employment, as part of the PYWD Project's strategic thrust on placement.

CHAPTER 1. BACKGROUND AND INTRODUCTION

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Pakistan's booming population has resulted in a "youth bulge" with 69% of the population under the age of 29. Its Gross Domestic Product (GDP) growth rates are low and insufficient to absorb the 1.5 million youth joining the workforce annually. Thus, it is not surprising that the unemployment rate among Pakistani youth is twice of non-youth (7.7% vs. 3.8%)[1]. Moreover, almost half of Pakistani young women are likely to be unemployed and three times less likely than their male counterparts to participate in the formal labor market at all.

Punjab is the most populated province of Pakistan with over 110 million inhabitants, i.e., 53% of the country's population. In Punjab, the districts in the South are among the most underdeveloped regions of the country. Centuries of feudalism and a lack of adequate industrialization and entrepreneurship have left marks on the political, social, educational, and cultural life of South Punjab, which have been augmented by illiteracy and poverty issues.

Cultural and political turmoil are considered to be fundamental causes of extremism and terrorism tendencies among the low- and lower middle-income classes. Furthermore, economic deprivation, a lack of education, and politics of religion coupled with defective and misaligned priorities of successive governments are other pertinent factors promoting extremism in various segments of society, especially among the youth. At the macro level, inappropriate education (including technical and vocational training), limited economic opportunities, lack of assets and poor access to credit have further aggravated the social and economic vulnerability of youth to violent extremism.

In addition to the above, South Punjab (like the rest of Pakistan) is mainly agrarian with major revenue coming from agriculture, livestock, and associated value-added industries[2]. Limited economic activities and educational opportunities have also contributed to a mismatch between trained youth (supply) and industry need (demand). Youth are unable to gain the skills demanded by employers and hence, cannot take advantage of many good workforce opportunities. Businesses suffer from a labor force with low productivity. This mismatch is due to many distinct but inter-related factors including:

- TVET institutions reach limited number of eligible youth,
- Low education levels of potential trainees,
- Outdated curricula, equipment, and methods,
- Limited counseling and placement services,
- Few internship/apprenticeship opportunities,
- Limited resources by the poor to pursue TVET education, and
- Poor trainee soft skills (e.g., problem solving, teamwork)

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[1] Labor Force Participation rates and un-employment rates, Labor Force Statistics (Pakistan Bureau of Statistics)

[2] Punjab Development Statistics 2015 of Bureau of Statistics, Government of Punjab

On the flip side, Pakistan is blessed with energetic youth who can be a productive asset if properly trained through targeted skill development programs. The government is cognizant of this fact and has initiated various skill development programs and training institutes for youth. It is understood that a focus on technical and vocational education will not only improve individual performance, but also increase labor productivity and national growth from both domestic and international jobs. According to the Pakistan Economy Survey 2016-17, there are about 9 million Pakistanis working around the globe consisting of 54.8%, 26.8%, and 11.9% of expatriates in the GCC countries, Europe, and the United States of America, respectively. During 2016, around 0.84 million Pakistani workers migrated for work, primarily to Saudi Arabia and the UAE, contributing to the growth of these economies and remittances to Pakistan.

POPULATION AND ECONOMY OF PAKISTAN

According to provisional summary results of the 6th Population and Housing Census 2017, Pakistan's population has surged to a staggering 207 million, an increase of 75 million people in 19 years. The female population stands at 101 million or 48%, while the male population has increased to 106 million or 52%. (There are also 10,418 reported transgender people (0.05%) in the country.) The rural population, though still high, has decreased to 63%; while the urban population has increased continuously to 36%. Age-wise, 41.70% (21.80% male and 19.90% female) of the population is below the age of 14; 27.40% (13.5% male and 13.9% female) population is between the ages of 15-29. The remaining 30.90% (16.7% male and 14.2% female) of the population is 30-65 and above. On the basis of the population demographic ratios (provided above), the gender-wise youth population is calculated for the PYWD-focused districts in **Figure 1** below.

Figure 1. Population by Gender, Areas and Age in the Four Districts

Description	Multan	Muzaffargarh	Bahawalpur	Lodhran
Male population	2,437,412	2,218,744	1,879,317	862,663
Female population	2,307,504	2,103,132	1,788,578	837,873
Total Population	**4,744,916**	**4,321,876**	**3,667,895**	**1,700,536**
Rural	2,686,819	3,627,984	2,496,848	1,434,910
Urban	2,058,097	693,892	1,171,047	265,626
Estimated Youth (based on overall youth index)				
Age (0-14)				
Male (21.83%)	1,035,815	943,466	800,701	371,227
Female (19.88%)	943,289	859,189	729,178	338,067
Total (0-14)	**1,979,104**	**1,802,654**	**1,529,879**	**709,294**
Age (15-29)				
Male (13.51%)	641,038	583,885	495,533	229,742
Female (13.90%)	659,543	600,741	509,837	236,375
Total (15-29)	**1,300,581**	**1,184,626**	**1,005,370**	**466,117**
Total population 0-29 (EST)	**3,279,686**	**2,987,281**	**2,535,249**	**1,175,410**

Source: Citypopulation.info

Economic growth in Pakistan has historically remained volatile, lacking steady growth and adding to uncertainty about the country's economic stability. Historical data (e.g., the Pakistan Economic Survey) shows that the economy reached above a 10% growth level in 1954, but the following year it declined to 2%; went up again to above 9% in 1969 and 1970 and dipped again to 1.2% in 1971. Likewise, it reached 7.5% in Fiscal Year (FY) 2004-05 but slowed to 5.6% the next year and further dropped to 5.5% in FY 2006-07. From 2007-08 to 2012-13, the economy grew by 3.2% on average. The GDP growth has smoothly increased from 4% in FY 2013-14 to 5.28% in FY 2016-17, which is the highest in 10 years.

According to Economic Survey 2016-17, the growth was propelled by the following sectors:

1. Agriculture sector met its growth target of 3.5%;
2. Large-scale manufacturing major contributors are sugar (29.3%), cement (7.1%), tractors (72.9%), trucks (39.3%) and buses (19.7%);
3. Service sector recorded a growth of 5.9%. The growth in this sector is bolstered by output in the agriculture and manufacturing sectors; and
4. Export of services increased by 0.6% during July-April 2017 of which travel, construction, insurance, telecommunication, computer and information services and other business services sectors showed growth.

The country's economic outlook looks promising with recovery in the agriculture sector, a rebound in industrial activities, and an increase in investment under the China Pakistan Economic Corridor (CPEC). Along the CPEC route, the planned new industrial zones should open additional opportunities for investment, particularly for small- and medium-sized auxiliary businesses. According to a report published by PricewaterhouseCoopers in 2017, Pakistan is projected to become the world's 20th largest economy by 2030. However, this growth is dependent upon an increasingly educated and skilled workforce.

USAID-FUNDED PUNJAB YOUTH WORKFORCE DEVELOPMENT PROGRAM

To aid in meeting this demand, the USAID-Punjab Youth Workforce Development (PYWD) is a 3-year project (May 2016-September 2019) that aims to train and provide employment for youth in the Multan, Lodhran, Muzaffargarh, and Bahawalpur districts of South Punjab. The Tehsil-wise population composition of these four districts is given below (Please refer to **Figure 2 below**):

Figure 2. Tehsil-wise Population of PYWD Focus Districts

Districts	Tehsils	Tehsil Population	District Population
Multan	Multan Saddar	1,322,756	**4,744,916**
	Multan City	2,258,377	
	Shujabad	609,631	
	Jalpur Pirwala	554,152	
Lodhran	Lodhran	704,584	**1,700,536**
	Kahror Pacca	500,939	
	Dunyapur	495,013	
Bahawalpur	Hasilpur	456,006	**3,667,895**
	Khairpur Tamewali	262,628	

	Yezman	614,143	
	Ahmedpur East	1,078,472	
	Bahawalpur City	681,696	
	Bahawalpur Saddar	574,950	
Muzaffargarh	Muzaffargarh	1,621,611	**4,321,876**
	Alipur	639,748	
	Jatio	714,576	
	Kot Addu	1,345,941	

Louis Berger, a global consulting firm, is the lead implementing partner supported by competent Pakistani professionals and local partners. The PYWD Project coordinates its activities with public and private sector institutions working on youth development.

The main objectives of the project are:

- To provide vocational training and create employment opportunities for youth in focus districts of Punjab,
- To build the capacity of youth-serving institutions for skill training, and
- To mobilize local communities for youth development.

In doing so, the PYWD Project works to enhance socially constructive attitudes among the youth and enable employment opportunities for 10,000 youth, 35% of whom are women.

SCOPE OF SKILLS GAP VALIDATION/ASSESSMENT

Recognizing the objectives of the PYWD Project, it is pertinent to empirically gauge and assess the current supply and demand for workers in key sectors so that the project can successfully link youth with economic opportunities.

The scope of this validation study is to assess and prioritize trades currently being demanded along with the available training facilities in the targeted intervention areas of Multan, Bahawalpur, Lodhran and Muzaffargarh.

A number of studies have already been conducted on skills in Pakistan, including South Punjab, by various stakeholders for their own purposes. Relevant studies to PYWD Project were reviewed, but were largely found to be outdated and inconclusive. To assess the current skills gap, the findings of each study were validated with key stakeholders to better assess the trades as per current and future industrial demand. In order to capture updated industrial demands, the PYWD Project also expanded the scope of the study by engaging and incorporating the inputs of major stakeholders operating in the agriculture, manufacturing, and services sectors in the PYWD-focused districts. These sectors were selected given their increasing role in Pakistan's economic growth.

OBJECTIVE OF THE SKILLS GAP VALIDATION/ASSESSMENT

The objective of this validation study is to review and build upon the work that has already been done by various stakeholders in this area. This study validates the findings with a more recent and clear analysis of the supply and demand for skills and training.

The sub-objectives of the assessment are:

1. To identify and prioritize the labor market trends and skill needs by assessing the previous skill studies conducted by various stakeholders and by aligning the findings with present and future demand of the labor market;
2. To identify and assess the current training facilities and their infrastructure in regard to current market requirements and placement ratios in the selected districts;
3. To identify prospective employers from the project areas;
4. To frame recommendations for the training providers on minimizing the mismatch between learning competencies of the trainees versus workforce requirements of employers; and
5. To forge strong linkages through innovative partnership models between training institutes and employers for productive and sustainable workforce development.

APPLICATION OF THE SKILLS GAP VALIDATION/ASSESSMENT

Completion of the assessment at this point will validate the focus of the Project to-date, suggest any changes, and inform the future direction of the Project as well as additional workforce development activities in Pakistan. In particular, the demands and requirements of the industry (formal and informal) will help further steer project interventions towards identifying the required vocational, technical, and soft skills required to help increase placement outcomes in the targeted districts. The gap analysis will identify challenges and opportunities for youth employability (wage/self-employment) and will provide a foundation for creating and enhancing market linkage strategies for wage/self-employment, as part of project's strategic thrust on placement.

CHAPTER 2. METHODOLOGY AND PROCESS

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SKILLS GAP ASSESSMENT/VALIDATION METHODOLOGY

To achieve the objectives of the study, a comprehensive plan was developed by the Project's team. The assignment was divided into the following sub-activities with the results indicated in the following chapters of this report:

1. Select various studies on the TVET sector. The selection was based on the studies' relevance to the PYWD-project focused districts, training delivery, and overall utility to the PYWD Project. (**Chapters 2 and 3)**

2. Conduct literature review/secondary research of the selected studies to identify and select the targeted sectors based upon the economic activities prevalent in the target districts and employable jobs **(Chapters 2 and 3).** In doing so, profile sectors, trades, and skills demanded for employment were identified in the selected studies (**Chapter 2, Figure 3**). Finally, the major outcomes of each selected study were identified and compared to the objectives of the PYWD project. (**Chapter 3**)

3. Conduct additional primary research to validate the findings, particularly the demand of each trade in primary sectors, of the studies and determine the application to the PYWD Project. Validation included conducting firm surveys, interviews, and focus group discussions (FGDs) with key stakeholders. (**Chapter 3**)

4. Map the Training Institutes offering various vocations in the targeted districts and compare them to those demanded. (**Chapter 4**)

5. Determine the main findings and conclusions of the assessment and its relevance for the PYWD Project. (**Chapter 5**)

6. Re-affirm ongoing work as well as chart the way forward for the PYWD Project and other workforce development programs using this information. (**Chapter 6**)

LITERATURE REVIEW

A comprehensive literature review of the selected studies was carried out to assess the relevance of the available literature produced by various well-respected agencies, organizations, and training institutes in the project-focus districts and for the TVET sector. The aim was to identify the skills gaps and validate the identified skill gaps in regard to currently identified training gaps including trades, condition of existing training infrastructure, and employment opportunities in the intervention areas.

The following studies were selected and reviewed, and the outcomes/results of each were summarized using a detailed format for validation and assessment purposes (see **Chapter 3** of this report. The format along with a full list of the details and objectives of each report is given in **Annexes I and II**.)

1. USAID/Pakistan-Workforce Development Study of Multan, Bahawalpur and Muzaffargarh (February 2013)
2. GIZ-Study on Producing Skills Workforce for Potential Economic Sectors in Punjab (January 2018)
3. GIZ-Skills Trend Analysis (National and International) (February 2017)
4. GIZ-Comparative Analysis of TVET Sector in Pakistan (February 2017)
5. PSDF-Tracer studies of Skills for Jobs Scheme in South Punjab (2014-15)
6. TEVTA-Skill Mapping Report (various Districts) (2011)
7. PVTC-Skill Mapping Report (various Districts) (2011)

At the end of each summary report, an analysis was provided on the area(s) of the study that aligned with the PYWD Project. (Since the objectives and the format of each study were different, the summary format of each study also varies in order to capture the content and substance provided.)

A key benefit of reviewing these studies was to identify and extract shared sectors of focus. After analyzing the existing reports, the recommended trades identified within each study were then segregated by sector. As the result of the outcome of the summaries (provided above) of the selected studies, three (3) sectors - - Services, Manufacturing and Agriculture -- were identified where all recommended trades could be segregated (**Figure 3**). The objective of the sector-wise segregation was to classify the skills sets within the sub-sector falling under the three selected sectors.

Figure 3. Sector-wide List of Trades Extracted From Literature Review

Services	Manufacturing	Agriculture & Livestock
Light Engineering Services - Machine Operator, Black smith, CNC Operators, PLC Technicians, Industrial Electrician, CAD/CAM Technician, Product Designer, Sheet Metal Worker, Foundry Worker, HVACR, Boiler Operator, Rice Milling Plant Operator, Tin Smith Note: Many identified skills here are equally applicable for the manufacturing	**Cotton Ginning** – Mechanical Fitting & Plant maintenance, fabrication, welding & pipe work, general electrician, Cotton Ginning Technician	**Agriculture -** Fruit & Vegetable Crop specific training program on high value crops, Seed Testing Plant Protection Technician, Paddy Analyst, Tunnel Farming, Tree Pruning & Canopy Management, Fruit Processing Pack House Workers, Nursery Management, Floriculture & Vegetables Seed Production, Agriculture Field Assistant, Biogas plant technicians, cooling plant / chiller technicians
Construction - Mason, Steel Fabricator, Carpenter, Building Electrician, Plumber, Welders, Bench Fitter, Electrical Wireman, Tile Fixers, False Ceiling, Timber Flooring, Scaffolding workers, Grinder, Polishers, Operators & maintenance of earth moving & heavy machines, emerging specialized field, marble, synthetic tiles, fixers and aluminum work fabricators	**Spinning** – General electrician, electronics technicians, mechanical fitting & plant maintenance, fabrication, welding & pipe work	**Livestock -** Livestock Extension Technicians (Artificial insemination, disease management & treatment), Veterinary Assistant,
Automobile Services - Driver, Auto-Mechanic, HTV Driver, Tractor Mechanic, Loaders	**Weaving –** Mechanical maintenance, sectional warping, yearn dyeing.	**Dairy -** Dairy Farm Management, Value Addition & Marketing, Dairy & Cattle Farming, Micro dairy farmers / entrepreneurs on skills upgradation and capacity enhancement

Services	Manufacturing	Agriculture & Livestock
Women related - Beautician, Domestic Tailoring, Fabric Printing, Hand Embroidery, Handicrafts Making, Multani Embroidery	**Leather tannery –** Wet processing, Dry processing, Grading techniques, Glover pattern design and making, Leather cutters, Dies and molds technician	**Poultry -** Rural poultry farming, Vaccinator cum extension worker, Sales & Retailing in Poultry
Hospitality - Hotel Management, Food & Beverages, Professional Cooking	**Sheep casing –** Food safety and sanitation, selection & grading, salting and preservation	**Fisheries -** Cold chain technicians by product training, fish processing
Meat Processing – Halal Meat export oriented training (traceability, tagging of animals and record keeping), Slaughter House & related training (hygienic standards required for the export of meat as well as for meat products globally) , Meat retail workers training (hygiene and food safety)	**Textile -** Industrial stitching machine operator, Stitching machine mechanic, Apparel Supervisor, Pattern drafting & Cutting, CAD / CAM Patter Design, Quality Control, Planning & Production Control, knitting machine operator, Machine & Hand embroidery, Computerized Industrial Embroidery, Professional Garment Washing, Textile Fitter, Cutting & Screen printing	
Logistics - Export managers, Accountants, Merchandising / Export Documentation, Green Logistics Management, Custom House Brokerage, Dangerous Goods Packing and handling, Safety and Security Management, Sales Agents, Warranty handling & management	**Ceramics -** Production workers, Glazing Supervisor, Body supervisor, Kiln supervisor, Designing or molding in-charge, Plant and equipment maintenance technician, Blue Pottery	
Miscellaneous - Electronic media, Telecommunication		

IDENTIFICATION OF KEY ECONOMIC SECTORS

From the study review, profile sectors, trades, and skills demanded for employment were identified by district (**Figure 4**). A focus was also placed on those economic activities with the potential to attract private sector participation and effectively benefit from assistance from the TVET sector with the support of the PYWD Project.

Figure 4: Key Economic Sectors by District

Districts	Economic Sectors		
	Industry including Exports	**Agriculture & Livestock**	**Services**
Multan	Fertilizer, Pesticides, Cotton Projection & Processing, Textile, Leather, Processing, Flour Mills, Sugar and Oil Mills. Blue pottery and Camel-skin work, Embroidery on dresses	Cotton, Sugarcane, Wheat, Sunflower & Fruits (Mango & Citrus)	Hospitality, travel & tourism, logistics, customer services, health services, office management, retailing & marketing, construction and IT
Bahawalpur	Cotton ginning and pressing, Flour mills, General Engineering, Looms, Oil mills, Poultry feed, Sugar, Textile spinning & weaving, Vegetable ghee and cooking oil, Silk, Embroidery and Carpets	Cotton, Sugarcane, Wheat, Sunflower seeds, Grape/Mustard seeds.	Hospitality, travel & tourism, logistics, customer services, health services, retailing & marketing and IT
Muzaffargarh	Cotton ginning and processing, Flour mills, Jute textile, Oil mills, petroleum (Pak Arab Refinery, Polypropylene bags, Power generation (Kot Addu Power Co, Lalpir Power and Thermal Power Station), Readymade garments, Sugar etc.	Mango, Dates, Pomegranate, Poultry and Fisheries	Construction, travel & tourism, sales & marketing
Lodhran	Exporting high quality cotton seed and their processing products	Cotton, Wheat, Onion, Tomato, Potato, Milk Processing/Dairy, Animal & poultry feed, Dairy farms, Meat/Poultry process units	Travel & tourism, hospitality, sales & marketing, logistics and maintenance services

SURVEY OF STAKEHOLDERS (VALIDATION OF FINDINGS FROM THE SELECTED STUDIES)

To validate the findings of the studies and also the direction of the PYWD Project to-date, a questionnaire was developed (**Annex III**) and consulted with key stakeholders in each of the industries. The survey focused on the following four dimensions:

1. Identification of the tasks (skills sets) in the economic sector/ subsector of the target districts
2. Identification of the nature and level of the skills required for the tasks
3. General understanding about the availability of training in the local TVET institutions
4. Knowledge of any other institutional source of the desired training

The survey was conducted among knowledgeable and well-versed practitioners of the target industries and trades and consisted of the following activities:

- Finalizing a list of industrial enterprises (large, medium, and small) and institutions (Public/ Private and male/ female) Drawing a sample from the population of enterprises and the institutions, and
- Designing and administering survey instruments to address the needs of employers as well as technical, educational and vocational training institutions (TEVTIs) with respect to future demand and supply.

INTERVIEWS AND FOCUS GROUP DISCUSSIONS (FGDS)
The project also utilized interviews and FGDs with stakeholders as tools to: a) validate and/or extend the findings and/or inferences of the studies reviewed; b) identify the gaps amongst the current skills/trainings being developed/imparted, corresponding trades' demands, and, the respective facilities to launch the trainings and the employment prospects. The PYWD field teams were mobilized to conduct direct interviews with the leading stakeholders of the selected sectors (services, manufacturing, and agriculture). (For a sector-wise list of participants on these surveys, see **Annex VI**).

In addition to the above referred survey/questionnaire, the PYWD team conducted FGDs with TVET providers, academia and industrialists/employers on the identified trades/sectors.

To do so, the team conducted the following activities:

- Sought a meeting with a list of prominent industrial enterprises (large, medium, and small), institutions (Public/ Private and male/ female) to serve as the respondents.
- Designed background note to present the salient features of the previous reports to the industrial and economic stakeholders for demand assessment.
- Shared background note with FGD and captured opinions of the technical, educational and vocational training institutions (TEVTIs) with respect to future supply.

The FGDs were then used to validate the following:
- The PYWD Project's summaries of the major reports.
- The PYWD Project's Comparative Analysis of the major reports.
- Key observations and findings from participants.
- Additional conclusions on skills gaps from participants.
- Recommendations from participants.

The results are shared in **Chapter 3** of this report.

CLASSIFICATION OF TRADES
After the completion of interview-based survey and FGDs on the secondary data, the sector-wise trades were classified by the level of prevalent demand (i.e., high, medium, and low). Important insights gained include:
a. Some of the trades which were recommended by the previous studies were no longer in high demand. For example: Veterinary Assistants, Biogas Plant Technicians, Leather Dies & Mold Technicians and Ceramics Production Workers.
b. Some of the trades which were earlier recommended by the previous studies were still in high demand. For example: Blue Pottery, Industrial Stitching Machine Operators, Spinning Fabricators, Weaving Mechanical Maintenance, Leather Tannery Wet & Dry Processing, Computerized Industrial Embroidery,

Artificial Insemination Workers, Dairy & Cattle Farming, Rural Poultry Farming, Travel Management and Drivers.

c. Some of the trades which were not recommended by the previous studies were now in high demand and for the first time, highlighted through this report. For example: Mushroom Culture, Hydroponics, Post-Harvest Losses Control, Auto cone Folding, Fiber Optics Network Technicians and Boiler Operators.

After completion of review of studies, interview-based surveys and/or FGDs on the validation/assessment, all the outcomes and results were summarized and compared by line-item of trades/interventions recommended in each study. The results are shared at the end of **Chapter 3**.

MAP THE TRAINING INSTITUTES

Having carefully considered the demand side, the Project selected the TVET sector institutes in the focused districts and mapped the TVET training, courses offered and capacity gaps. This was done by surveying all registered training institutes offering skills in the focus districts. (Further details and results are provided in **Chapter 4**.)

KEY FINDINGS

Using all of the secondary and primary research on both the demand and supply sides, the key findings of the analysis for the PYWD Project were synthesized and are provided in **Chapter 5**.

WAY FORWARD

The findings of the analysis were assessed in light of the PYWD Project and additional workforce development activities/programs in Pakistan. These are provided in **Chapter 6.**

CHAPTER 3. REVIEW AND VALIDATION OF EXISTING STUDIES

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SUMMARY AND RELEVANCE OF KEY STUDIES

Using the methodology presented in the previous chapter, a number of studies (seven) were identified, reviewed, and validated using both primary and secondary data. In addition, key findings and/or applications to the PYWD Project were made. A summary report of each study is included in Annex II. After summarizing the studies and their relevance to the Project, the team sought to validate the findings of the studies, using additional secondary research and primary research (surveys and focus group discussions (FGDs)). The emphasis of this activity was to confirm or to refute the demanded trades from the studies with current demanded trades (and therefore, to better identify those that have economic potential) by sector. The results were compiled and are summarized according to the following key focus areas:

1. **Description of the Study:** Information on institution/title/location and year of study of the Skill Gap Study selected by the PYWD project for the assessment/validation
2. **Sectors:** The sector or subsector of the study selected for the assessment/validation by the PYWD project.
3. **Study Outcome:** The interventions selected by the PYWD project from the study to assess/validate.
4. **Validation/Assessment:** The extract from the outcome of the interview-based surveys and/or Focal Group Discussions. Assessment/validation result of each trade/intervention is also highlighted in this section.
5. **Source of Validation/Assessment:** A source from where the PYWD project assessed/validated the selected trade/interventions of the selected study is provided in this column. There are similar trades/interventions in more than one study, so the source of the assessment/validation remains the same.
6. **Relevance to PYWD Project:** The relevance of each assessment/validation of the selected trades/intervention with the PYWD Project.

A detailed summary report of the validation of each study is included in **Annex IV.** A summary of the validation exercise with key stakeholders and the implications for the PYWD Project has been compiled below.

1. USAID/Pakistan Firms Project – Workforce Development Study

Summary: The study was undertaken to capture the prospective self- and wage-employment opportunities. It provided an assessment of the supply and demand side of the skills development system as well as labor market of three districts of southern Punjab to highlight their characteristics and key features for the identification of potential employment opportunities, where short trainings (a few months) can enable young people to get self or wage employment. The study was restricted to young men and women age 15-35. A number of relevant sectors were reviewed including: agriculture, horticulture & vegetables; dairy; livestock (meat); poultry; aquaculture; and, manufacturing and services (e.g., cotton ginning, spinning, weaving, leather tannery, construction and housing). The study also looked at soft skills needed and skills needed for self-employment as well as overseas employment.

Relevance: In light of the PYWD Project, the following recommendations were found relevant and aligned with PYWD project:

- Promotion of an apprenticeship programs
- Improvement in the capacity of the existing training providers

- Promotion of self-employment – microfinance coupled with enterprise development / vocational training
- Development of a career guidance and counseling system
- Development of a sustainable training model, based on public-private partnership (government, MFI, private sector).

Validation/Assessment from Primary Research: The study assessed the supply and demand sides of the labor market in a number of different sectors (see below) in the following districts: Bahawalpur, Muzaffargarh, and Multan. The findings were then validated by the Project team with the following results and recommendations for Project applicability:

Agriculture: There remains a high demand for the trades, as identified in the study report. Emphasis was also given to the following trades during the validation exercise: seed testing & seed storage, post-harvest management, pest management, fruit & vegetable crop-specific training, and one roof tunnel farming. It was also noted that trainings should be done through community/ field-based training so that local farmers can access them easier. These trainings can also reach young farmers at their door step which they can use not only for their own purposes, but to also offer services to others as farm assistants. Participants noted that there is also a need for tailor-made courses on these disciplines with a duration of 1-4 weeks.

The PYWD Project is being implemented in the south Punjab where the economy is based on agriculture and approximately 80% farmers have land holdings of 2 to 15 acres. Generally, the farmers are using traditional methods for their agricultural activities. There are, however, some more progressive farmers using modern technology who require high skills to manage their farms such as farm management, value addition of their products, and use of new techniques. As such, this type of training could be beneficial.

The Project's focus is youth employability, which can be aided by offering courses for young, marginalized farmers and lead to increased agricultural productivity in the region. Currently, the project offers 6-month courses in three trades: farm manager, pest management and auto and diesel mechanic. The Project will consider shorter courses at the field level, as suggested by the exercise. These will need to be designed as per the area and specific crop requirements.

Dairy & Livestock (Meat): The proposed trades of the study remain in high demand in additional to a number of newly identified trades including: cold storage operator, dairy and cattle farming, and disease management and treatment. While the government is offering a veterinary assistant course for two years with a focus on artificial insemination and vaccination, there is no other institute or curricula available for these trades, including disease management. Moreover, in the focused districts, most of the villages could better utilize farm yard manure and biogas techniques, but have not yet been trained properly.

In order to offer dairy-related trainings, specific short courses at the farm level on the value addition/change, and disease management will need to be designed. For the technical training, the government-supported Livestock Department can provide technical assistance and the private sector can offer entrepreneurship and value change training.

Poultry: The FGD revealed that "Rural Poultry Farm Management" was the most demanded trade for a 1-3 weeks short training course. It was also noted that poultry farmers are not trained on the right heat conditions, food management, and/or quality assurance. Moreover, poultry farming is highly sensitive and small mistakes can damage the entire poultry farm, so participants suggested a specific training program for this purpose. In South Punjab, home-based livestock management and poultry is common, but there is a need to make this activity more strategic, particularly among youth, who can make it into a business.

Fisheries: It was found that the trades provided in the study are of general nature. The fish farmers suggested that the fish processing (value chain) is now the most demanded trade. Also, soft skills training was noted as

deficient in the business. This is an area the project can focus on whereas it can work with Training Institutes to increase fishery programs/trainings at the farms.

Manufacturing & Service: In the **cotton ginning sector**, business owners reported that mechanics, machine operators, and ginning technicians were currently the most highly demand trades. In the **spinning and weaving sectors**, owners reported the most relevant trades had changed from the original study and now included: ring department, simplex weaving shed, sizing auto cone, and folding in spinning. Currently there is no training institute or curricula available in the focused districts for such. The project can work with the TVET sector to introduce courses to train youth in these areas.

In the **leather industry**, business owners reported the following trades in high demand: leather technician, beam house tanning technician, and leather machine operator. In addition to this, it was suggested to develop tailor-made courses on leather stitching, lasting and cutting along with quality control measures. The duration of courses could be from 6-12 months. New technology for the leather business is also emerging, so there is an increased need for workers who understand and can apply this knowledge. Currently, there is no training institute or curricula available for such in the focus districts. The project can work with the TVET sector to introduce courses to also train youth in these areas.

Construction & Housing: Discussions with engineers and owners of construction firms identified the following trades in high demand: steel fixer, shuttering and masonry, and CAD/CAM graphic design. It was noted that there is inconsistency among workers' knowledge and application and there is too much reliance on traditional masons/labor. Effective training could help bring this gap both domestically and internationally, as construction is one of the major trades for the overseas employment. Also considering the boom in hospitality sector, new hotels and restaurants are being constructed. Moreover, in construction-related IT trades, female involvement and training can also be encouraged. The PYWD Project will explore additional venues for delivering this type of training.

The study also looked at the following areas which were also validated by the team:

Soft skills including work ethics, time management, networking skills and people management, rights and responsibilities of workers, basic health, emergency and life-saving skills. All were found to be highly demanded in all sectors. The PYWD Project has included soft skills training including job preparedness trainings in most of its training program and will continue to add other areas.

Self-Employment: The study looked at a number of trades and barriers to self-employment. However, currently, there is no formal system for business development services (BDS) or funding (e.g., startup-capital) to support entrepreneurs. The PYWD Project has introduced an objective-based, self-employment training program whereby following the completion of training, the skilled beneficiary will receive a relevant toolkit and may be linked with partner MFIs as well. In addition, the Project is also offering entrepreneurship training to potential borrowers.

Overseas Employment: The study looked at a number of conditions needed for increased overseas employment opportunities. The identified interventions were more relevant for government as well as for larger training providers. However, as a pilot, the PYWD Project could enter into an agreement with COTHM to provide 12 months training in the hospitality sector for overseas employment. Other avenues for the overseas employment may also be explored subject as part of an extension to the PYWD Project

2. GIZ-Skills Trend Analysis (National and International)

Summary: The study sought to identify the demand for jobs in various TVET-related trades in Pakistan and to identify deficiencies and opportunities of each trade in national and international job markets. The document also highlighted the main objectives of the National Skills Information System (NSIS) established by the NAVTTC under the TVET Reform Program. The analysis showed that Saudi Arabia and UAE are the

highest demanding countries for skilled Pakistanis. Within Pakistan, the Karachi, Islamabad, Lahore, Peshawar, and Faisalabad Districts absorb most of the skilled labor. The workforce demand for PYWD-focused districts is 4.4%, 2.1%, and 0.66% respectively for Multan, Bahawalpur and Muzaffargarh. (There is no information for Lodhran.) It was also mentioned that the highest demand is for mid-level skilled workers with a trade certificate (vocational trades), followed by fresh graduates in vocational trades. In general, high-level experienced workers are in low demand as are those who recently graduated with a Bachelor's degree.

Relevance: This study is conducted in support with the NSIS and covers all the trades at the national and international levels. While the study is not specific to the PYWD-focused districts, it does relate to PYWD Career Counseling Service activities and linkages of its established Career Counseling Centers with NAVTCC's NSIS. In addition to CCC activities, the study has relevance to the PYWD Project including priority trades, female-related vocations and employability.

Validation/Assessment from Primary Research: The study looked at the National Skills Information System (NSIS) and found a need for demand driven workforce as per the requirements of industry/ employers. There is a strong need to establish data collection or a management system for supply and demand; to align TVET Plans, policies and programs with Skills Information System (SIS); and, to establish and facilitate career guidance and placement services. The study also looked at the top 10 construction, manufacturing, and services trades in demand. In addition to those identified, the validation exercise highlighted the following: Steer Fabricator (Fixer), Machine Operator, Mason, Agriculture Field Assistant and Mechanic. The Project will follow-up on offering these types of courses as discussed above. In regard to the NSIS, the Project has established eight (8) Career Counselling Centers in focus districts and is currently working/supporting to link them with NSIS or TEVTA's national job placement center and developing a mobile application to link youth with employers. The employer could use the application to post job requirements and search for suitable candidates. This application could be linked with www.jobplacement.gov.pk.

3. GIZ-Producing Skilled Workforce for Potential Economic Sectors in Punjab

Summary: The study identified sectors having high and well-paid employment potential which included overseas employment. It identified the required trades, professions and possible skills gaps, relevant training institutes, and chambers/associations.

Relevance: Most of sectors – i.e. leather, sport goods, transportation -- have their own training facilities and are regionally focused. Others like the textile and construction sectors may be considered at national and international levels and could also be considered in the PYWD-focused districts.

Validation/Assessment from Primary Research:

Textile/Ready-made Garments (Woven/Kitted): A number of trades were identified for focus. As per the assessment / validation results with South Punjab textile mill representatives, the following trades were emphasized as high demand: stitching garments, garments inspection, packing, machine & hand embroidery, and knitting & machine operator. Stakeholders confirmed the need for short courses in these specific trades. The PYWD project is already actively involved with the garment and textile industry of south Punjab and is imparting trainings on job placement, self-employment including entrepreneurship with market linkages. While this study was conducted for Lahore and Faisalabad, the identified trades are similar in the Project's focus areas and will help inform its future priorities.

Light Engineering / Auto Parts: A number of trades were highlighted by the study but were largely generic. The validation exercise went deeper and pointed out the following highly demand-driven trades in the light engineering sector: welding and industrial electrician as well as denting & painting; motorcycle and car mechanic; solar panel technician; marketing & sales in light engineering sector; engine boring; engine head-

set grinding; automobile engineering; automobile hydraulic, and automobile car computer electrician. In addition to the technical training, increased on-job training (OJT) was also recommended for these trades. While this study was conducted for Lahore, these trades are also in high demand in the PYWD-focus areas and there are a number of training facilities with these courses. The project will continue to be actively involved in promoting training in this sector and will explore additional training needs and job placement opportunities.

Manufacturing / Ceramics Industry: Electric Insulators; Refractory/ fire, insulation bricks): The feedback received from the stakeholders' reports was that a glazing supervisor is in high demand along with *kashigiri* (pottery) and designing with calligraphy on camel skin. While this study was conducted for Gujranwala, the information is relevant in South Punjab in the related trades as there is a long history of ceramics and glazing products in the region. The project has already started training in blue pottery.

Light Engineering / Metal Fabrication | Light Engineering / Surgical Instruments: The validation results emphasize the following trades in high demand in light engineering (metal fabrication) sector: sheet metal worker, electrician, welding, industrial electrician, and computer-aided product/pattern designer. For surgical instruments; fitters and machine operators. In addition to technical training, OTJ training in the industry is also recommended. While the metal fabrication study was conducted in Gujranwala and the surgical instruments study in Sialkot, the PYWD Project can utilize it for the related South Punjab trades. The Project is actively involved in imparting training in light engineering sector and will keep exploring more ventures for the training needs and job placements.

Manufacturing / Sports Goods: The validation exercise confirmed that this is a very specific area serving the sport industry in Sialkot. Some of the trades are relevant to the leather industry and application for the PYWD Project is similar to the leather industry discussed above.

Services / Logistics, Customer Service: The study looked at Karachi, Lahore, Sialkot, and Faisalabad where large industrial units operate. While there are industrial units in south Punjab, there is no formal service/logistics sector there. Relevant stakeholders could not be identified to validate the trades. However, the PYWD Project is imparting soft skills and entrepreneurship training including job preparedness training, which partially covers the skill set needed for these trades.

Textile / Leather Sport Goods, Leather Sport Wear: Similar to the Textile and Leather sector above.

Construction and Housing: This study was conducted for Lahore, Faisalabad, Gujranwala, Sialkot, and Rawalpindi and has similar ramifications listed in the Construction and Housing section above.

4. GIZ/NAVTCC-Comparative Analysis of TVET Sector in Pakistan

Summary: The study focused on presenting a comparative analysis of the overall institutional infrastructure of the TEVT sector to guide policy makers in designing and implementing a training system to bridge the skill gaps. The study also presented an overview of the top 10 trades with highest enrollment data.

Relevance: The general information on the TEVT infrastructure on Punjab can also be used for the project's institutional capacity building interventions. The NAVTCC/NSIS may be linked with the Career Counseling Centers established by the PYWD project in the focus districts Finally, the data on the top 10 trades can be used for the training and placement interventions of the PYWD project.

5. PSDF-Tracer Study

Summary: Under the Skills for Jobs (SFJ) Scheme, PSDF trained 18,500 individuals in 121 trades. RCONS was commissioned to conduct a tracer study of SFJ trainees. The scheme was designed after extracting skills demand data from rigorous surveys that report individual preferences, market vacancies, and hiring trends.

The Tracer Study was conducted for 1,500 males and 685 females who were randomly-selected trained individuals of Bahawalnagar, Bahawalpur, Lodhran, and Muzaffargarh.

Relevance: The data provided in the tracer study can help PYWD project to identify high employment trades for both males and females in the focus districts.

Validation/Assessment from Primary Research: The study identified and reviewed sectors and trades where trained graduates maintained high employment rates. The validation exercise confirmed the trades (For males, largely livestock workers and welding and for females, beautician and professional cooking). The PYWD Project is already imparting training in these areas and will continue to explore additional avenues and placement opportunities.

6. PVTC-Demographics of Punjab – Training Needs Assessment at Tehsil Level

Summary: The study sought to identify the *tehsil*-level demographics of Punjab to carry out a Training Need Assessment (TNA) to introduce demand-driven trades at PVTC VTIs.

Relevance: This study did not specifically analyze the prevalent skills gaps; rather, it provided a detailed TNA, industry-related details, and the growing industries at the tehsil level. It could be useful through:

- Having details of 'Major Industries' and 'Major economic activities' at a lower level than district (i.e. Tehsil).

- Validating the 'Growing Industries' and 'Identified Potential Trades' through Industry's Feedback (FGD/Questionnaire).

- Performing a comparison on whether the identified potential trades are being offered (PYWD's mapping done of training institutes).

- Showing how the adoption of trades could have employment potential as part of project's implementation and sharing these findings with stakeholders as part of validation report.

Validation/Assessment from Primary Research: This study focused on conducting a Training Needs Assessment (TNA) for the introduction of demand driven trades with a focus on the following districts/locations: Bahawalpur, Lodhran, Muzaffargarh, and Multan. The assessment exercise by the PYWD team sought to validate these findings with key stakeholders. Key high demand/priority areas by district included:

- **Bahawalpur:** All the identified trades were found to still be in high demand (see annex for full list).

- **Lodhran:** Plant protection, agriculture field assistant, tunnel farming, and general fitter.

- **Multan:** Textile weaving, textile fitter, poultry farming, food & beverage, and ceramics.

- **Muzaffargarh:** Tunnel farming, plant protection, textile weaving, poultry farming, agriculture field assistant, industrial electricians, food & beverages, and general fitter.

In each of these areas and districts, the PYWD Project is already imparting trainings and will continue exploring avenues for additional trainings.

7. TEVTA-Skill Mapping Report

Summary: The focus of the report was to explore new opportunities in gainful employment and to identify training needs for income and employment generation. The main objectives of the study included:

- Development of an effective placement system that is complemented by career counseling at the micro-level,

- Assessment on the number of industries, which are operational in the target areas and further projects that might be implemented for devising an improved state-of-the-art training regime that complements an effective placement system, and

- Development of courses and trainings offered to the students that are designed in accordance with the existing and future demand of a placement system to ensure 100% employment of graduates.

Relevance: The study is strongly aligned with the PYWD Project's goals and objectives. The PYWD Project is directly helping to meet the recommendations provided in the four districts including career counseling services, institutional capacity buildings, on-the-job training and apprenticeships, demand-driven training, microfinance loans, and linkages between training institutes and industry.

Validation/Assessment from Primary Research: This study focused on a placement prospective and explored new opportunities for gainful employment with a focus on Bahawalpur, Lodhran, Muzaffargarh, and Multan. A key area of the study was the need for industry feedback to meet market demand including key gaps and solutions. The PYWD Project Delivery Model regularly incorporates: a) industry feedback and participation including the need for apprenticeships; b) exposure visits of school students to TVET institute and PYWD trainees selected visits to the businesses/industry; c) institutional capacity building of 22+ institutes to better meet industry requirements, establishment of eight Career Counseling Centers (CCC) and CC Services; and, d) job placements.

The study also focused on highly-demanded trades for males and females. The validation exercise found that a number of trades were found to still be in high demand including: cotton & ginning technician, hotel management, dairy & cattle farming; seed testing plant protection technician, paddy analyst, fitter general, tunnel farming, rice milling plant operator, industrial stitching machine operators, blue pottery, and tractor mechanic. For women, the following were confirmed: hand embroidery, beautician, and various positions in computer applications. The PYWD Project is currently imparting trainings in these trades and will explore additional avenues.

CHAPTER 4. MAPPING OF TRAINING PROVIDERS

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To better understand the supply side in light of the findings and validation exercise of the demand, the PYWD Project undertook a detailed mapping of the TVET sector at the macro level as well as at the institutional level with relevance to the prioritized trades. This aspect/analysis was largely missing from the reviewed studies, but was needed to further confirm the project's interventions and make recommendations for any gaps. The following are the significant findings of this exercise.

TVET SECTOR LANDSCAPE AT THE FEDERAL AND PUNJAB LEVEL

a. **Federal:** The National Vocational and Technical Training Commission (NAVTTC) is the main federal authority that works with provincial Technical and Vocational Training Authorities (TEVTAs) to develop and implement the National Qualification Framework (NQF). The Federation of Pakistan Chambers of Commerce and Industry (FPCCI) is participating in technical and vocational curriculum development. The NQF is designed to accommodate all kinds of TVET, whether formal, non-formal or informal, and from both public and private sector providers. The NQF/TVET is designed to promote linkages and pathways between programmes in TVET and general education.

b. **P-TEVTA** is the largest technical and vocational education service provider in Punjab. In 2016-17, it enrolled 174,000 people (51% technical and 49% vocational) in over 390 training institutions, out of which 48 were technical and 321 vocational. P-TEVTA offers more than 170 different technical and vocational training courses across the province. It is also the only service provider in Punjab that offers technical education.

c. **Punjab Vocational Training Council (PVTC)** is the second major TVET player in Punjab and is funded through Zakat (Charity) Funds and led by private sector. It targets poorest families entitled for support through Zakat and runs courses from 3 to 12 months. The PVTC courses also include a mandatory 2-month OJT. Training provided at the local level (sub district) through its 175 Vocational Training Institutes (VTIs) across province with considerable employer involvement in training design and delivery.

d. **Private Sector Institutions:** This includes approximately 480 institutions. Of them, 196 poly-techniques and affiliated with Punjab Board of Technical Education (PBTE) are operating in Punjab. The majority of private sector institutions offers courses that do not require heavy investment in labs. Generally, the private sector offers Diploma of Associate Engineering (DAE) and the courses include beautician, fashion apparel, embroidery, knitting, and cooking.

e. **Testing and Certification:** The Punjab Board of Technical Education (PBTE) and the Trade Testing Board (TTB) are the two-major testing and certification authorities in Punjab. Both were established under different legislations at different times. PBTE conducts final examinations pertaining to DAE and commercial education below degree level and certifies successful candidates in Punjab. TTB is responsible for testing of vocational students only where the emphasis is less on theory and more on practice. There are 370 institutions affiliated with TTB covering 120 trades. It conducts examinations for regular courses (2 years, 1 year, and 6 months) and short course (3 and 6 months).

INSTITUTIONAL GAP ANALYSIS

Without analyzing the supply side of the TVET sector, the skills gap analysis would not present an accurate assessment. To properly analyze the skills gap, a key element was to map the existing TVET institutes that are producing skilled workers in the PYWD-focused districts. For this purpose, the PYWD Project conducted a detailed profiling of TVET institutes in the four focus districts. The following criteria were considered for the selection of training institutes whose trainings are recognized at the provincial and/or national level:

- Training institutes located within PYWD's focused districts (Bahawalpur, Lodhran, Multan and Muzaffargarh);
- Training institutes registered/affiliated with TEVTA/TTB, Board of Technical Education/National Training Bureau/NAVTTC or any other Federal/Provincial or international body;
- Training institutes governed by any Federal/Provincial government department; and,
- Training institutes not blacklisted or barred by any national or international organization.

Based on the above criteria, a summary of the selected training institutes identified for the assessment is provided in **Figure 5** below. (Details of each of the training institutes surveyed can be found in **Annex V**). In short, the survey found that in addition to the three universities and a few government-supported commerce colleges, there are 47 institutes of TEVTA, 39 of PVTC, 28 of the private sector, and 4 by Sanatzar operating in the four target districts.

Figure 5. Summary of the Training Institutes Selected for Institutional Skill Gap Assessment

District	Major Institute				
	TEVTA	**PVTC**	**Private**	**Sanatzar**	**Total**
Multan	14	10	12	1	37
Bahawalpur	17	9	7	1	34
Lodhran	4	9	2	1	16
Muzaffargarh	12	11	7	1	31
TOTAL	**47**	**39**	**28**	**4**	**118**

Trade-wise Course Offerings by Training Institutes

After identifying the training institutes, a detailed questionnaire was developed and circulated to each to obtain information on its current trade offerings as well as a status on the availability of equipment, resources, gaps, etc. for each trade. The results appear in **Figure 6.** In short, 578 courses are currently being offered, and these Training Institutes train approximately 16,000-18,000 students annually.

Of note, courses in the trades of electrical, tailoring, computer skills, education, and beautician are offered in large numbers. Whereas there are 100 courses offered in electrical trade with almost half by TEVTA. Emerging technology, namely solar, is only offered in one course. Computer skills and tailoring take the second highest position in terms of courses being offered, but fewer than 10 courses are currently being offered in the trades of blue pottery, embellishments, and surveyor. Whereas all the ten courses offered on agriculture are by the TEVTA, similar courses of health care are offered only by the PVTC. Thus, it is clear this is a discrepancy between the demand for courses and the current supply.

Figure 6. Skills Provided by Existing TVET Institutes (Data collected in June 2017)

Courses Offered by the Institutes					
Trades/Sectors	**TEVTA**	**PVTC**	**Private**	**Sanatzar**	**Total**
1. Agriculture	10				10
2. AutoCAD		1	17		18
3. Beautician	24	24	5	3	56
4. Blue Pottery	6				6
5. Computer Skills	20	40	22	4	86
6. Civil/Construction Works			10		10
7. Education	34		35	1	70
8. Embellishments				2	2
9. Electrical	45	29	26		100
10. Hand & Machine Embroidery	3	8	2	5	18
11. Healthcare		10			10
12. Mechanic	26	6	3		35
13. Surveyor			23		23
14. Plumber	2	1	6		9
15. Solar			1		1
16. Tailoring	35	36	8	6	85
17. Welder	13	5	4		22
18. Other	8	3	2	4	17
TOTAL	**226**	**163**	**164**	**25**	**578**

Trades being offered by these institutes are from a selection of 18 listed trades which do not necessarily align with the market. The TEVTA institutes mostly offer courses in the following trades: electrical, tailoring, and education followed by mechanic, beautician, computer technician, and welder. For PVTC, basic computer courses and tailoring followed by electrical and beautician were the most common course offerings. For Private TIs, the focus is on education, electrical, surveyor, computer courses, and auto CAD. Lastly, Sanatzar focuses on tailoring and embroidery followed by computer courses and beautician. **Figure 7** provides the trade-wise course offerings of the surveyed training providers. Again, the supply does not meet the demand.

Figure 7. Courses Offered by Training Institutes
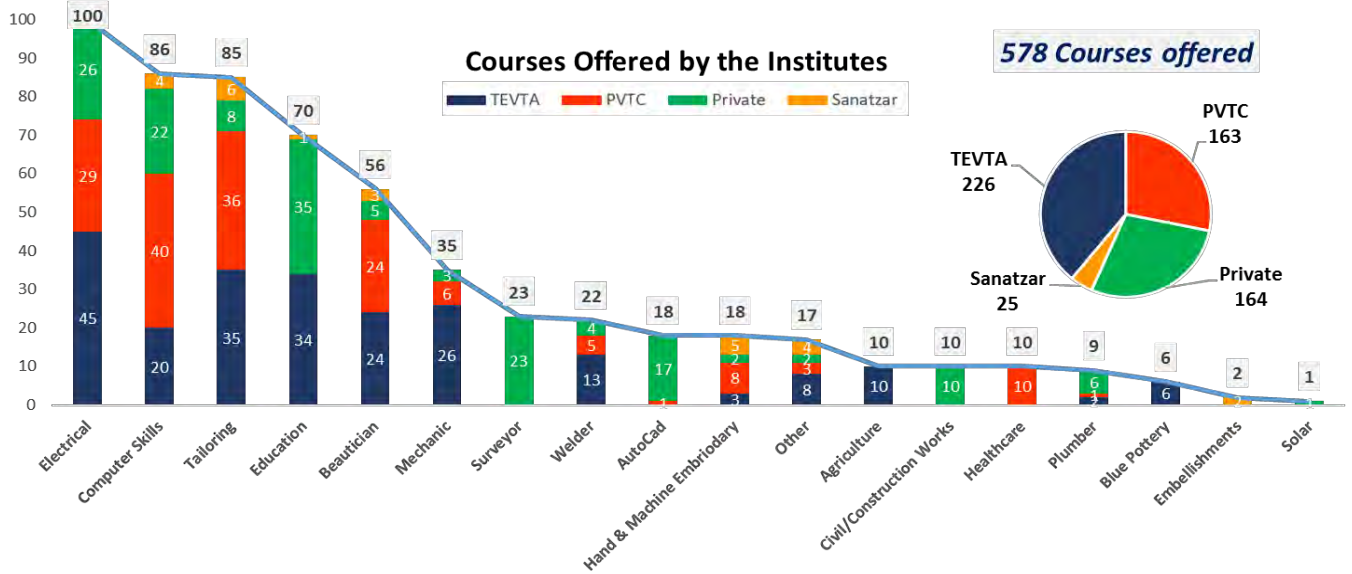
Figure 8 provides the breakdown of courses by project-focused districts, with the smallest offering in Lodhran.

Figure 8. District-wise Details of Courses/Classes Offered for Each Sector

Trades/Sectors	Multan	Lodhran	Muzaffargarh	Bahawalpur	Total
District-wise Courses/Classes Offered					
1. Agriculture	1	0	2	3	6
2. AutoCAD	3	1	4	8	16
3. Beautician	12	6	7	16	41
4. Blue Pottery	1	0	0	0	1
5. Computer Skills	1	0	2	0	3
6. Civil/Construction Works	14	7	16	12	49
7. Education	14	3	6	7	30
8. Embellishments	11	8	16	17	52
9. Electrical	1	0	0	1	2
10. Hand & Machine Embroidery	2	2	7	4	15
11. Healthcare	3	3	1	2	9
12. Mechanic	8	3	7	7	25
13. Surveyor	5	3	2	3	13
14. Plumber	3	0	3	3	9
15. Solar		1	0	0	1
16. Tailoring	5	2	6	2	15

District-wise Courses/Classes Offered					
Trades/Sectors	**Multan**	**Lodhran**	**Muzaffargarh**	**Bahawalpur**	**Total**
17. Welder	12	9	14	14	49
18. Other	5	2	7	7	21
TOTAL	**101**	**50**	**100**	**106**	**357**

Infrastructural Facilities of TVET Institutes

It was found that some of these institutions are reasonably equipped while others are not. In about 40% of trades, the following shortfalls in infrastructure were observed:

- Machines & equipment
- Establishment of a lab
- Minor equipment and IT accessories
- Lab machines
- Lab books

Results and Interpretation

The profiled 118 training institutes provide a number of courses to targeted youth in the PYWD-focus districts. However, a limited number of sectors are addressed through formal training institutes. Moreover, most of the trades offered are conventional and similar, and usually lead the skilled youth towards self-employment rather than better preparing them for wage employment in demanded trades. The major trades being offered by the training providers in the focus districts are electrician and computer application for males; and tailoring, beautician, and hand embroidery for women. This demonstrates a mismatch between industry's demand (as shown in previous chapters) and the training institutes supply as well as a significant unrecognized revenue opportunity for training providers.

Industry, although represented through institute management committee/district economic development forums, is largely inactive in ensuring the training meets industry needs. A lack of soft skills was also found to be a major training gap. Except PVTC, no other training provider focuses on it, despite the large demand for such skills. Lastly, a focus on imparting skills corresponding to the labor demand in Countries of Destination (CoDs) -- especially the GCC countries-- does not seem to be a priority area. This can be gauged by the fact that the number of trainings offered for overseas demanded jobs of civil/construction work, plumbing, and healthcare are 10, 9, and 10, respectively.

CHAPTER 5. KEY FINDINGS

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The purpose of this analysis was to assess and prioritize trades currently being demanded along with the available training facilities, their preparedness, and their current offerings to respond to the market requirements in the targeted intervention areas of Multan, Bahawalpur, Lodhran, and Muzaffargarh. Each of the studies reviewed by the PYWD Project was conducted by different TVET stakeholders for their own purposes. Some of the studies, however, were more relevant to the PYWD-focused districts, but were found to be relatively old. To verify the findings and better understand the demand by sector and trade, primary research was conducted with stakeholders in the key sectors. The demand was compared with the supply through a detailed mapping exercise of existing training providers. The following summarizes the key findings.

KEY CHALLENGES AND OPPORTUNITIES

This analysis has reinforced and further emphasized a number of **challenges** facing the TVET sector including:

Economic and Sectoral

- Limited economic opportunities (e.g., unstructured agrarian set-ups & seasonal industry)
- Poor linkages between industry & TVET institutes
- Skill mismatch – Demand vs. Supply leading to skills shortages and unemployable youth

Institutional

- Poor TVET institutional capacity
- Conventional trade profiling in public TVET institutes
- Outdated curricula / not aligned with industry standards
- Unstructured employment system in the industry
- Lack of private sector engagement
- Lack of adequate infrastructure

Behavioral

- Employers' reluctance towards traineeship/apprenticeships
- Lack of TVET sector awareness
- Youth hesitancy towards industrial employability (lack of exposure)

At the same time, a number of **opportunities** have been identified. These include:

- Emerging sectors and vocations in districts that provide employability potential
- Physical presence of public Training Institutions that have the potential to respond with structured support
- Innovative trade profiling and outreach to private sector training providers underway; with potential for increased involvement
- Presence of industrial hubs in Multan & Bahawalpur and informal sector in the focus districts
- Potential for Private Public Partnerships

KEY FINDINGS BY SECTOR

In order to capture updated industrial demand, the PYWD Project expanded its study through engagement with major stakeholders operating in the agriculture, manufacturing, and service sectors in the PYWD-focused districts and incorporated their inputs to the study. In addition, soft skills and self-employment were examined given their growing demand. Below is the outcome and conclusion of the work performed as part of this validation exercise:

AGRICULTURE SECTOR

Agriculture is the main economic activity in the four target districts, employing a large portion of the labor force and providing livelihoods to the rural population. However, traditional and non-professional techniques are commonly used for sowing, growth, disease prevention, and harvesting and preservation of crops. As part of this analysis, detailed interactions were held with stakeholders from the sector including researchers, businesses, farm owners and day workers to better understand the situation. Data was collected through secondary and primary research, engaging stakeholders using FGDs and interviews. It was found that there are limited opportunities within TEVTA, PVTC, and private sector institutes for specific, demand-driven short courses (1-4 weeks) in the targeted vocations that form part of the agriculture sector. Specifically, in the Project's focus districts, there is just one agriculture-specific training institute in Multan (i.e., Pak-German Institute of Cooperative Agriculture (PGICA)) offering courses but its courses are 6+ months (**see Figure 9**).

Figure 9. Courses Offered by Pak German Polytechnic Institute for Agriculture Technology (PGICA)

S. No	Course/Trade	Duration	Diploma/Certificate
1	Agriculture Sciences	3 Years	Diploma
2	F.SC Pre-Agriculture	2 Years	Certificate
3	Welder	6 Months	Certificate
4	Auto Mechanic (Diesel/Petrol)	6 Months	Certificate
5	Motor Cycle Mechanic	6 Months	Certificate
6	Farm Manager	6 Months	Certificate
7	Pest Manager	6 Months	Certificate
8	Tunnel Manager	6 Months	Certificate

In addition to PGICA, there are a number of universities[3] offering higher education in the agriculture sector, but they do not offer short courses for agriculture workers. Thus, it is clear there is a large demand for a number of short-term courses that can be offered on the farm or at more accessible training institutes for the following vocations (see **Figure 10**):

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[3] These include: Bahauddin Zakariya University, Multan; Nawaz Sharif University, Multan; National Fertilizer Corporation (NFC) Institute of Engineering & Technology, Multan; The Islamia University of Bahawalpur; and Agriculture Machinery Training Institutes in Multan and Bahawalpur offers Tractor Operator Courses.

Figure 10. Demanded Short-Term Agriculture Courses

Agronomic Crops	Horticulture	Livestock
Tractor Driver, Laser Lever Operators, Farm Equipment Mechanics, Farm Machine Welders, Farm Equipment Electricians, Tube well / Turbine Mechanics, Pesticide Application Workers, Combine Harvester Operators, Gur Making Labor, Farm Accountants, Tunnel Farming (One roof tunnel structure with drip irrigation	Nursery Workers and Budders, Nursery Supervisors, Nursery Input Suppliers, Seed Production Workers, Seed Handling Workers, Drip Irrigation Technician, Tree Pruning & Canopy Management Workers, Post-Harvest Techniques Workers, Fruit & Vegetable preservation Assistants.	Livestock Extension Technicians, Dairy Farm Workers Dairy and Cattle farming, Biogas Plant Technicians, Cooling Plant / Chiller Technicians, Artificial Insemination, Butchery, Meat Production & Processing, Cold Chain Management, Hatcheries Workers, Poultry Disease & Nutrient Management Assistants, Pond Management. Poultry Farm management, Fish processing.

In addition, a few unique, yet demand-driven trades currently available in Universities that can be immediately promoted by the PYWD Project among businesses and trainees include:

➢ Training on Mango production, harvesting, post-harvesting, packaging and polishing techniques,
➢ Seed Testing,
➢ Sowing of seed, fertilization, irrigation, pesticide application, harvesting and threshing,
➢ Mushroom Culture,
➢ Hydroponics,
➢ Nursery raising for Kitchen Gardening,
➢ Pest & Disease Monitoring,
➢ Open & covered vegetable growth,
➢ Crop Storage and Health Aspects,
➢ Post-Harvest Losses Prevention Training,
➢ Natural/organic techniques for Preservation,
➢ Boiler Operator, and
➢ Fiber Optic Network Technician.

To address the above gaps identified in the agriculture sector, the following required actions have been identified by the PYWD Project:

• Shortlisting of the few high-demanded trades, coupled with the laying down of the areas of intervention to make the same accessible,
• Finalization of topics/areas of training, based upon requirements analysis of the PYWD Project and research conducted by the Institute/University,
• Development of entire course plan, including course outlines, curricula, training duration and assigning faculty for training implementation,
• Finalization of the mode for conducting training programs, which will be trade/topic-specific:
   o *Within the Institute/Universities* – through classroom training along with practical training by utilizing institute/university-based nurseries, farms and demonstration plots,
   o *On-field training* – at farmers' place through university's visiting faculty; group formation of farmers at local-level for imparting training programs at village level,
   o *Exposure visits* – of farmers to Universities for demonstration purposes; and,
• Training Assessment & Certification to be done by the Institute/University.

MANUFACTURING SECTOR

Most of the manufacturing in the districts is based on agricultural- or livestock-related raw materials to produced goods used for further value addition in downstream operations. Larger operations include cotton ginning, spinning, weaving, and sheep/cattle casing. Other manufacturing that plays a vital role in the economy of these districts includes electric power generation, chemicals, auto assembly, food and beverage, handicrafts, and cottage industry.

Given the current skills gaps in this industry, the PYWD Project expanded its assessment to include the manufacturing sector, where training institutes are unable to meet the workforce demand. Our assessment showed that the following vocations are highly demanded in the focus districts:

- **Cotton Ginning Sector:** Fitter maintenance mechanic, machine operators, and ginning technicians

- **Spinning and weaving sector:** Ring department, simplex weaving shed, sizing auto cone and folding in spinning

- **Leather Tannery:** Leather technicians, beam house tanning technicians, and leather machine operators

Currently there are no training institutes or curricula available in the focused districts to meet the demand of these sectors and thus, there are few skilled workers in these areas. Moreover, while new technologies are emerging in this sector to increase productivity, efficiency, and quality, there has been limited initiative in the focus districts to introduce new technologies or modernize training institutes accordingly. Instead, TVET institutions are largely providing training in the following conventional trades:

1. Electricians,
2. Machinist,
3. HVACR,
4. Mobile Repairs,
5. Computer Application; and,
6. Hand and Machine Embroidery.

While these trades also remain in high demand, the PYWD Project learned that there is high demand from the industry for on-the-job training and eventually job placement in a number of other short-tenured skill-sets as recommended by the stakeholders for the manufacturing sector. The recommended duration of these courses ranges from 1 week to 6 weeks and are typically not offered by the training providers in the project's four districts. These trades are:

Textile:
- Grading & sorting of different qualities of Cotton
- Mechanical Fitting & Plant Maintenance – mechanical fitters and plant maintenance mechanics
- Press Machine Operators
- Fabricators - fabrication, welding & pipe work
- General Electrician
- Electronic Technicians
- Operators of Oil Extraction Machines
- Supervisors for the mill
- Oil Expeller operator
- Quality assurance and account assistant
- Machine Maintenance
- Sectional Warping
- Yarn Dyeing

Sheep Casing:
- Food Safety and Sanitation
- Selection and grading
- Salting and Preservation

Jewelry Making & Handicrafts
- Multani Karhai
- Moakesh, Tilla, Moti, Sitara, Nug, and thread work
- Design and production
- Business management and marketing

Food & Beverage and Chemicals
- Production workers
- Quality control workers
- Electrical and mechanical technicians
- Sales staff
- Purchase and inventory management
- Supervisors
- Fitter
- Helper
- Accountants

Others
- Environment, Health and Safety workers
- Auto assembly workers – mechanics and supervisors
- Solar panel installation and maintenance workers

To address the above gaps identified in the manufacturing sector, the following required actions have been identified by the PYWD Project:

- Incorporation of above-mentioned vocations including direct training and placement with the industry in Project's focus on training and placement for targeted youth.
- Introduction of shorter-term courses for targeted vocations.
- Introduction of training in newly-demanded training programs like solar.
- Couple with training on self-employment-related training, market linkages and provision of appropriate toolkits in these areas.

SERVICES SECTOR

The services sector also includes trades which cater to the basic needs of the population, providing value-added professional services, and creating employment opportunities for a large number of people. This sector also has potential to provide employment opportunities to skill workers in: construction and housing, health, ICT, hospitality, logistics and education.

Health: The findings indicate that one of the important economic sectors and employers in the focused districts is healthcare. The demand for healthcare services has been increasing over the few years and is anticipated to continue growing further, leading to an increased demand for healthcare workers. The skills required for this sector are largely technical in nature. The most critical vocational trades identified include:

health care assistants, medical equipment operators / helpers, lab assistants and technicians, and pharmaceutical salespersons.

The PYWD Project could continue exploring partnerships with the training provider and the private/public sector technical experts to improve the current available curricula for specific health courses and improve the institutional capacity to deliver health training.

Hospitality: This sector comprises of hotels, food retailers, food manufacturers, travel agencies, travel guides, tour operators, and other sub-sectors providing customer service. The demand for various trades in the hospitality sector has witnessed an upward trend due to various factors – one of the most dominating factors being the increased number of flights coming into Multan (more than 90 flights in a week), thereby resulting in an increased demand for travel agents and tour operators in the targeted districts. The existing skills gap in the hospitality sector results from a lack of training providers to fulfill the needs of the services and hospitality industry. The existing skills gap also creates an opportunity cost in terms of money and time invested by all employers into the training of their employees in skills that are not being catered by the educational/training institutions. The list of trades / skills required by the sector include:

- Food & Beverages
- Barista
- Soft skills
- *Tandoorchi* (bread makers)
- Guest relation Officer
- House keeping
- Front desk manager
- Food safety
- Carving skill
- Cabin crew (Air Hostess)
- Air ticketing
- Travel Management
- Training manager

To address the above gaps identified in the services sector, the following required actions have been identified by the PYWD Project:
- Narrow the disconnect between academia and industry.
- Increase training and job placement in the identified vocations above.
- Identify training institutes to help in designing and providing the course contents of the identified trades/skill-sets which are currently not being offered by the training providers, but are in high-demand and also plan for commencement of these training programs.
- Create better awareness of the community and inform them that hospitality sector has huge potential for jobs and career growth.

Increase soft skills training, particularly work ethics, attitude/personality building, and mental readiness to accept challenges as hospitality sector is labor intensive (standing job and lengthy timing).

CONSTRUCTION AND HOUSING SECTOR

The construction and housing industry not only has great employment potential, but also has backward and forward linkages with dozens of industries as well as transport and ancillary services. Thus, it can serve as an engine of growth for the economy. It is also one of the most labor-intensive sectors. As such, well-designed, integrated and coordinated housing and construction has the potential to achieve significant labor market

outcomes. However, optimal employment gains are linked with an adequately trained skilled workforce. The Project identified the following gaps/missing vocations in the focused districts:

- Skilled workers like tile fixing, aluminum fabricator, and pre-fabricated steel structure, masons, electricians, plumbers, carpenters,
- Technical foremen / in-charge, mostly educated with diplomas or degrees in some discipline,
- Operation of earth moving and other heavy machines, requiring operators and assistants,
- Mechanics of different types for maintenance of heavy machines and equipment used in the infrastructure projects, and
- Similarly, experts of emerging specialized such as: marble and synthetic tile fixers and aluminum work fabricators etc.

No institute in the targeted districts offers training programs for operators of earth moving machines. On the other hand, the employment opportunities of such jobs are continuously increasing. Tile fixing, aluminum fabricator, pre-fabricated steel structure and many other construction sector related courses are not being offered in the training institutes of the areas.

The Project will explore short-tenured training programs in the construction sector for the most demanded trades. The recommended duration of these courses ranges from 1 week to 6 weeks and are typically not offered by the training providers in the project's four districts.

SOFT SKILLS

An important area that was identified by the stakeholders and validated by employers (in almost all the sectors studied) was the lack of soft skills at all levels. The following are not being taught at any of the training centers:
- Time management,
- Networking skills and people management,
- Rights and responsibilities of workers,
- Basic health (and reproductive health in case of females),
- Emergency and life-saving skills, and
- Work ethics.

The Project has started implementing these types of trainings and will continue to emphasize such.

SELF-EMPLOYMENT

Significant potential for entrepreneurship exists in the manufacturing and trade of local agricultural products and handicrafts. However, many people lack the appropriate business experience, and there is no training institute or service provider currently providing training in entrepreneurship and/or the management of small businesses. As such, this is another area the Project can improve upon.

CHAPTER 6. WAY FORWARD

CHAPTER 6. WAY FORWARD

Using adaptive programming, the PYWD Project has already started to incorporate the results of this analysis in its prioritized activities and will continue to do so. In addition, the findings will inform future workforce development activities, either as an extension to the PYWD Project and/or through other workforce development programming. Key recommendations and steps include:

Prioritize strategy in accordance with the validation of skills gaps assessments

The Project will further categorize priority trades/vocations from the validation exercise to initiate demand-driven partnerships between industry and TVET Institutes. In light of the recommended trades within the reviewed seven studies and those that are still in high demand, the Project has initiated more relevant institutional and on-the-job (OTJ) programs for youth. The following are the major ones which have been adopted and which will continue to be a focus:

Agriculture – Farm Management, Pest Management, Tunnel Farming, Auto/Tractor Mechanic.

Manufacturing – Machinist, Solar Panel Mechanic, Leather Tannery, Spinning & Weaving Machine Operators, Fabricators, Mobile Phone Repair.

Services – Soft Skills, Fashion Designing, Clinical Assistants, Travel Management, Food & Beverages.

Deploy innovative tripartite partnership agreements with employers and training providers

The Project is expanding the use of its successful process-based onboarding approach to further identify demand-driven training and work through strategic partnerships with industry and training providers to offer innovative training models, including: i) OTJ training, ii) apprenticeships, and iii) online training (where appropriate). In addition, considering the limited and traditional vocational and technical skills available in the focus districts, the PYWD Project is also seeking new and innovative training and placement models, such as the Skills for Market Linkages Program, objective-based self-employment training, and other income generation programs.

The PYWD Project has already materialized two important partnerships with leading players in hospitality and health care sectors. The first one is with the College of Tourism & Hospitality Management (COTHM)[4], a pioneer institution in hospitality sector workforce development. The second MoU is a tripartite collaboration between PYWD project, Fatima Memorial Hospital (FMH)[5] and PVTC, aimed at leveraging the platform to tap training and employment opportunities in clinical care sector for the project beneficiaries. Several new partnerships are in the process of finalization.

Expand placement opportunities

The Project is linking public and private sector training institutes to businesses in major industrial hubs of the focused districts as well as—to a limited extent—within the country and abroad in order to increase the number and quality (i.e., pay, working conditions) of overseas employment opportunities for Pakistani youth. Additionally, the Project is looking at expanding the number and quality of job placements by further linking already established Youth Associations (YAs) to labor market facilitators/intermediaries (Jobbers and

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[4] http://www.cothm.edu.pk/
[5] http://www.fatimamemorial.org.pk/

Contractors) who are currently providing skilled/unskilled workforce to the industry. The goal is to create a sustainable model of employment creation for marginalized youth by directly linking skilled/unskilled youth workforce from the targeted communities with the industry.

Pursue opportunities for overseas employment

While continuing to work with the available resource (training) providers and industry, if extended, the PYWD Project could expand its placement base not only to other parts of the country but also abroad, particularly to GCC countries where demand for Pakistanis is high in the construction and services industries. It could work alongside governments (especially on the G2G arrangements as evidenced in Qatar and Jordan), construction firms, recruiters, and skills development agencies to help incorporate best practices in skills up gradation and increase employability for the youth in the targeted districts. Louis Berger with its offices in UAE, Qatar, Saudi Arabia and Kuwait would be able to help facilitate such partnerships.

The PYWD Project will also expand its scope to include training for those vocations that are in high demand abroad. This could include partnering with COTHM and its allied overseas employers for training and placement of PYWD-focused youth in the tourism/hospitality sector as well as construction (e.g. masons, electricians, plumbers, carpenters) and transportation (licensed drivers). Attention will also be given to the development of soft skills including: i) work ethics, ii) time management, iii) networking skills and people management, and iv) emergency and lifesaving skills.

Expand opportunities for women

Drawing on lessons learned from the Project's base years and the results of this analysis, the PYWD Project will seek to expand opportunities for women. Demanded areas in particular include livestock, dairy farming, fabric printing, and art and design. The Project will also provide support services to help women successfully join the formal workforce.

Pursue opportunities for self-employment

On the self-employment side, the PYWD Project is currently providing microfinance loans and entrepreneurial toolkits aimed primarily at women. In the future, the Project can further leverage and link start-up businesses to MFIs, thereby providing budding entrepreneurs with increased access to capital. Entrepreneurial hubs and incubators can also be explored. The PYWD Project is also considering offering more advanced-level interventions to respond to demand for microenterprise development among tractor mechanics, livestock technicians, and female-based agriculture farming.

Use technology to overcome gaps

The PYWD Project has been actively exploring and adapting technology-based solutions for skills delivery, in particular the deployment of a mobile money platforms for onboarding and payment of monthly stipends for the targeted youth. The "Cash-on-Counter (COC)" mechanism enables a text message on the beneficiary's mobile phone with a pin number and designated bank branch/remittance/payout agent to collect the stipend. The use of this technology-based payment system not only reduces paperwork but ensures transparency and positively impacting the marginalized youth's self-confidence through enabled financial inclusion.

The PYWD Project and other workforce development programs should look to further using modern technology including mobile-optimized websites and job search tools to help youth in their job search. These include establishing "mobile job centers" to help job seekers obtain additional information on: a) jobs consistent with their skills and preferences; b) where to get training; and c) help in the employment search process and interview preparation.

ANNEXURES

ANNEX I. KEY STUDIES REVIEWED

CONDUCTED BY	TITLE PAGE	SUBJECT OF THE STUDY	OBJECTIVE OF THE STUDY
GIZ		Study on Producing Skills Workforce for Potential Economic Sectors in Punjab. January 2018	The report focused on the following major areas: 1. Identification of sectors having high and well-paid employment potential which may include overseas employment, 2. Identification of the required trades, professions, 3. Identification of possible skills gaps, 4. Identification and rating of the relevant training institutes, 5. Identification and rating of the relevant chambers/associations, and 6. Recommendations/preparation of future roadmaps
		Skills Trend Analysis (National and International) February 2017	The objective of the jobs analysis is to find out skills demand of job market in various TVET related trades in Pakistan, identify deficiencies and opportunities of each trade in national and International job markets.
		Comparative Analysis of TVET Sector in Pakistan February 2017	Following are the main objectives 1. To develop/provide a reliable National Skills Information System (NSIS) for workforce development in employable skill, 2. To provide timely and accurate information on demand and supply analysis to TVET planners, training institutions, industry, academia, students and public in general, and 3. To establish and facilitate career/vocational guidance and placement services for TVET graduates and potential employers.

CONDUCTED BY	TITLE PAGE	SUBJECT OF THE STUDY	OBJECTIVE OF THE STUDY
PSDF		Tracer studies of Skills for Jobs Scheme in South Punjab. 2014-15	The study provides, the high employment in Skills for Jobs Scheme for male and female trades.
USAID		Workforce Development Study of Multan, Bahawalpur and Muzaffargarh February 2013	To gather employment-related demographics, social and economic profile of the young people, including: 1. To scan the major business sectors of three districts (South Punjab), 2. To identify and recommend potential self and wage employment opportunities, 3. To identify constraints being faced by the youth of three districts in getting skills development / vocational trainings and in turn securing reasonable employment 4. To evaluate the prospects and viability of public private partnership (PPP), and possible business models in implementing the employment led skills development programs in three districts (South Punjab).
TEVTA		Skill Mapping Report (various Districts) Mid 2011	To identify the demand and supply related to selected sectors. These multiple sectoral reports intend to set the directions for TVET practitioners.
PVTC		Skill Mapping Report (various Districts) Mid 2011	To identify the demand and supply related to selected sectors. These multiple sectoral reports intend to set the directions for TVET practitioners.

ANNEX II. SUMMARIZED OVERVIEW OF EACH SELECTED STUDY

1. Pakistan Firms Project – Workforce Development Study		
Organization: Chemonics International, Inc. USAID Contractor	**Author:** Aftab Associates Private Limited	**Published/Printed by:** Firm Proje In 2013
Address: Project Closed	**Phone:** Project Closed.	**Location:** Bahawalpur, and Muzaffargarh, Multan.
Focus of the Study: The study addresses "supply side" and "demand side" aspects of the labor market, in qualitative as well as quantitative terms, by restricting the scope to the young men and women of age 15-35		

The study was undertaken to capture the prospective self and wage employment opportunities and provides an assessment of the supply and demand side of the skills development system as well as labor market of three districts of southern Punjab, to highlight their characteristics and key features for the identification of potential employment opportunities, where short trainings of a few months can enable the young people to get self or wage employment. The potential employment opportunities are studied in the following sectors:

Sectors	Sub-sector	Existing and Potential Job Opportunities
Agriculture, Horticulture & Vegetable	Crop production crop husbandry	Field preparation, sowing / transplanting, irrigation management, fertilizer application, pest and weed control etc.
	Crop inputs	Seed processing & selling, fertilizer / farm yard manure, insecticide/ pesticides formulation, packaging, retailing & application
	Cotton picking/ harvesting	Picking supervisor, tractor driver, harvesting & threshing
	Marketing	Packing, loading and transportation etc.
	Processing/ value addition	Ginning, extraction of oil, weaving, printing and dying, knitting, apparel and made ups
	By products	Packaging, selling and business linkages in by products, e.g. wheat and rice straw
	Extension services/ technical services	Agriculture officer and field assistant
Suggested Training: Fruits and vegetables crop specific training program on high value crops, Tunnel Farming, Value addition/ fruit & Vegetable processing and preservation, Standards and certification and extension services, tree pruning and canopy management, processing house/ Packhouse workers, nursery management, floriculture and vegetables seed production training programs		
Dairy	Technical services	Vaccination for prevention of diseases, disease treatment, artificial insemination
	Value addition	Khoya, cheese, cream, butter and desi-ghee, yogurt production
Suggested Training: Livestock extension technicians (specialized in artificial insemination, disease management and treatment, dairy farm management, value addition and marketing, Micro dairy farmers/ entrepreneurs on skills up-gradation and capacity enhancement, biogas plant technicians, cooling plant/ chiller technician.		

Sectors	Sub-sector	Existing and Potential Job Opportunities
Livestock (Meat)	Butchery	Training butchers
	Marketing	Market assessment, price negotiations and Marketing skills
Suggested Training: Meat export oriented training, buck station & related training, cold chain technicians, by product training and meat retail workers training.		
Poultry	Farm management	Supervisor, professional and various related skills (feed, vaccination, medicines)
	Marketing & retail, waste material, technical services	Marketing skills, waste management and vaccination technicians.
Suggested Training: Rural poultry farming, vaccinator cum extension workers, value addition, sales and retailing, Certification & Standards (Halal, GlobalGAP/ HACCP)		
Aquaculture	Hatcheries	Hatcheries management staff
	Fish pond management	Farm supervisors and assistants
	Feed for fish	Fish feed management
	Harvesting & sales channels	Marketing experts
	Export and value addition	Cold store operators, cold storage workers and refrigerated delivery vans
Manufacturing and service	Cotton ginning	Unskilled workers, machine operators, cotton evaluator, machine maintenance mechanic. Also for oil mills, machine operators, mechanics, supervisor/ manager, oil expert.
	Suggested Training: Mechanical fitting & plant maintenance, fabrication, welding & pipe work, general electrician.	
	Spinning	Unskilled workers, checkers, operators, quality observers, shift in charge, foremen, head and assistant head fitters, electricians and assistant electricians, bench fitters and black smiths
	Suggested Training: General electrician, electronics technician, Mechanical fitting & plant maintenance, fabrication, welding & pipe work.	
	Weaving	Helpers/ apprentices, machine operator, warping, yarn dyeing process.
	Suggested Training: Mechanical maintenance, sectional warping, yarn dyeing	
	Leather tannery sector	Helpers, beam house department, tan yard, dye yard, finishing, supervisors, quality control, support department
	Suggested Training: Wet processing – wet blue, tanning and dyeing, Dry process - finishing, softening, buffing, polishing, and covering, Grading techniques	

Sectors	Sub-sector	Existing and Potential Job Opportunities
	Sheep casings	Apprenticeship, hereditary profession
	Suggested Training: Food safety and Sanitation, selection & grading, salting and preservation	
	Construction and Housing Sector	Unskilled labor, skilled workers – masons, electricians, plumbers, carpenters, heavy machine operator. Technical foremen, Engineers, Project Manager
	Suggested Training: Operators and maintenance of earth moving and other heavy machine, emerging specialized filed – marble, synthetic tiles fixers and aluminum work fabricators.	

Soft skills: Work ethics, time management, networking skills and people management, rights and responsibilities of workers, basic health, emergency and life-saving skills.

Sectors	Sub-sector	Existing and Potential Job Opportunities
Self-employment	Service provider	Tractor mechanics, livestock technicians, electricians, diesel engine mechanics, plumbers, beauticians etc.
	Farm based micro enterprises	Production of crops, cattle, milk and milk based value added products, vegetables and fruits, handicraft and food items
	Buy/selling	Retailing of various items/goods
	Buy back arrangement	Contract farming, embellished cloth, Multan/ Bahawalpur famous embroidery, handmade carpets,
	Female focused	Agriculture farming – sowing and harvesting, beauty parlors, tuition centers, stitching, selling of cloth, embroidery work artificial jewelry.

Suggestions: Engagement of private sector players to promote self-employment. Training provider capacity enhancement, Business development services, access to finance,

Sectors	Sub-sector	Existing and Potential Job Opportunities
Overseas Employment	Overseas Employment Opportunities	Through bilateral agreements in Saudi Arabia, UAE, Abu Dhabi, Oman, Kuwait, Qatar, Bahrain, Libya. Malaysia, Singapore, Kazakhstan
	Employment opportunities including work from home	E-commerce and marketing, Online, teachers, data entry operators, call center representatives, web developer, etc.
	Job potential in KSA, UAE, Kuwait, Qatar, Oman, Bahrain	Construction, oil and gas, mining services, transportation, communication, agriculture and related sector and security personnel.
	Major trades for overseas employment	Laborer, drivers, mason, carpenter, electrician, fabricator, welder, security personals, salesman, crane operators, A/C and Refrigeration technicians

Suggestions: Bilateral agreements with Countries of Destination (CoDs), establish new technical training institutes, develop website, training of Pakistani embassies staff for promotions of workforce supply, International roadshow for promoting Pakistani workforce for overseas, linkages between recruiting agencies, training institutes and the aspirants, promote work from home.

Punjab Youth Workforce Development Project (PYWD) Assessment

The study is mainly focused on agricultural and aquaculture sectors and related interventions as well as opportunities abroad. However, the following recommendations are aligned with PYWD project:

1. Promote apprenticeship programs
2. Improve the capacity of the existing training providers
3. Promote self-employment – microfinance coupled with enterprise development / vocational training
4. Develop a career guidance and counseling system
5. Develop a sustainable training model, based on public-private partnership (government, MFI, private sector), etc.

2. Skills Trend Analysis (National and International)		
Organization: National Vocational & Technical Training Commission (NAVTTC)	**Author:** Sayed Asghar Shah Mansoor Zaib Khan	**Published/Printed by:** Deutsche Gesellschaft fur International Zusammenarb (GIZ) GmbH In February 2017
Address: 5th Floor, Evacuee Trust Complex, Sector F-5/1, Islamabad	**Phone:** +92-51-904404	**Location:** TEVT sector in General (National and International)
Focus of the Study: To Calculate skills supply and demand Gaps Analysis and to adjust the skills supply as per the Labor Market demand.		

The objective of the jobs analysis is to find out skills demand of job market in various TVET related trades in Pakistan, identify deficiencies and opportunities of each trade in national and international job markets.

National Skills Information System (NSIS): The document highlights the main objectives of the National Skills Information System (NSIS) established by the NAVTTC) under TVET Reform Program of GIZ. All the national and International TVET information is available on the NSIS website (http://www.skillingpakistan.org).

Workforce Demand: The analysis shows that Saudi Arabia and UAE are the most demanding countries of the skilled workforce and within Pakistan, Karachi, Islamabad, Lahore, Peshawar and Faisalabad districts absorb the skilled labor. The workforce demand for PYWD focused districts is 4.4%, 2.1% and 0.66% respectively for Multan, Bahawalpur and Muzaffargarh. There is no information for Lodhran. It is also mentioned that the highest demand is of the mid-level experience skilled workforce of the trade certificate (vocational trades) followed by fresh graduates in vocational trades. In general, high-level experienced workforce is in low demand as well as fresh Bachelors.

Skill Gap Analysis: The study provides the following analysis:

Gender-wise Demand			Sector-wise skilled Workforce Demand		
Demand	**Male**	**Female**	**Sectors**	**National**	**International**
National	89%	11%	Construction	16%	55%
International	98%	02%	Manufacturing	33%	8%
Annual skilled workforce supply of female is around 39%			Services	27%	11%
Age 19-26	12%	13%	Maintenances	12%	17%
Age 27-35	88%	87%	This may help to prioritizing the skills at national and international level.		
Female representation is less than 2%					

Top 10 Demands, considering both domestic and international demand, were:

1. Driver
2. Mechanic
3. Mason
4. Steel Fabricator
5. HTV Driver
6. Carpenter
7. Electrician
8. Agricultural Field Assistant
9. Plumber
10. Machine Operator

Punjab Youth Workforce Development Project (PYWD) Assessment
This study is conducted in support with the NSIS and from the relevant material, which covers all the trades at National and International levels. Although, the study is not specific to PYWD focused districts, however, overall assessment may have relevance to PYWD project, e.g. trades, female related vocations and employability, career counseling services and linkage with NSIS.

Organization:	Author:	Published/Printed by:
Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ) GmbH	Wilhelm F. Weidmann Muhammad Ali	Deutsche Gesellschaft fur Internation Zusammenarbeit (GIZ) GmbH In November 2016
Address: Bonn and Eschborn, Germany	**Phone:** +92-51-8469120	**Location:** Lahore, Faisalabad, Gujranwala, Sialkot

Focus of the Study:

Identification of sectors having high and well-paid employment potential which may include overseas employment, Identification of the required trades, professions and possible skills gap, Identification and rating of the relevant training institutes, chambers/associations.

Priority sectors with high employment potentials

Geographical Area Cluster Location	Sector/Subsector
Lahore/Faisalabad	Textile Sector/Readymade garments (knitted, woven)
Lahore	Light Engineering/Auto Parts, Service sector/Logistics, Customer Services
Gujranwala	Manufacturing/Ceramics, Light Engineering/Metal Fabrication
Sialkot	Light Engineering/Surgical Instruments, Manufacturing/Sports Goods
Lahore/Faisalabad/Sialkot	Construction/Masonry, Plumbing, Carpenters

Sector-wise Details of Vocations

Sector	Job Requirements	Trades/Vocations	Location
Textile/Readymade Garments (Woven/Knitted)	38% of the workforce. Approximately 133,000 jobs in next 5 years	Industrial stitching machine operator Stitching machine mechanic Apparel Supervisor Pattern drafting & cutting CAD/ CAM pattern design Quality control & QA Planning & production control Knitting machine operator Machine & hand embroidery Computerized industrial embroidery Professional garment washing	Lahore and Faisalabad

Sector	Job Requirements	Trades/Vocations	Location
Light Engineering / Auto parts. Cars and Light Commercial Vehicles (LCVs) Motorcycle part Parts for Two Wheelers Three Wheelers Tractor Parts Parts for Trucks and Buses Parts for After Sales Market	Sector-wise employment is approximately 200,000 employees.	Machine tool operators, Black smith Bench fitter Welders CNC operators PLC technicians Industrial electrician CAD/CAM technician Product Designer Present CVT courses can continue as well.	Lahore
Manufacturing / Ceramics Industry: Manufacturing / ceramics industry Electric Insulators Sanitary ware Tiles Tableware Refractory/ fire, insulation bricks)	500-800 persons/ annum.	Production workers Glazing supervisor, Body supervisor, Kiln supervisor, Designing or molding in-charge Plant and equipment maintenance technician	Gujranwala
Light Engineering / Metal fabrication:	500-800 persons/ annum.	Machine tool operators, Sheet metal worker Electrician Foundry workers Bench fitter Welders CNC operators PLC technicians Industrial electrician CAD/CAM technician Product designer Computer aided product/pattern designer Dies and molds technician	Gujranwala

Sector	Job Requirements	Trades/Vocations	Location
Light Engineering / Surgical Instruments	500-800 persons/ annum.	Grinders Polishers Filers Fitters Dyers & mold makers Machinists Machine operators Accountants, Merchandising / export documentation	Sialkot
Manufacturing / Sports Goods	Approximately 70,000 persons in next 5 years.	Machine stitching operator Hand stitching Pattern maker Cutter Pattern design and cutter Wood turners Wood workers Cutting and Screen printing Woodworkers for cricket bats, including jointers, samplers, polishers, blade shapers, handle makers Workers for composite based products including mold masters and tube machine operators Export Managers Plant & equipment maintenance technician	Sialkot
Services / Logistics, Customer Services	Approximately 1500 to 2000 persons	Trades/ kills required by the sector include: Loaders Drivers Green logistics management Custom house brokerage Dangerous goods packing and handling Safety and security management Sales agents	Karachi Lahore Sialkot Faisalabad

Sector	Job Requirements	Trades/Vocations	Location
		Warranty handling & management (repair/ replacement shipment handling)	
		Know-how of industry-relevant IT systems	
		Diploma in Freight Forwarding	
Textile / Leather Sport Goods, Leather Sport Wear	Approximately 100,000 persons employed and 200-400 new workers needed	Machine stitching operators	Sialkot
		Gloves pattern design and making,	
		Leather cutters	
		Hand & machine embroiders	
		Plant & equipment maintenance technicians	
Construction and Housing	Approximately 115,000 new skilled labor is required	Masonry, Carpenters, Plumbing, Tile Fixers, Building Electricians, False Ceiling and Timber Flooring, Scaffolding workers	Lahore, Faisalabad, Gujranwala, Sialkot and Rawalpindi

Punjab Youth Workforce Development Project (PYWD) Assessment

Most of sectors, such as, Leather, Surgical, Sport, Transportation etc. have its own training institutes in their locations. Moreover, they are regional focused. Others like Textile and Construction sector may be considered at national and international levels and may be considered in the PYWD focused districts.

4. Comparative Analysis of TVET Sector in Pakistan		
Organization: National Vocational & Technical Training Commission (NAVTTC)	**Author:** Sayed Asghar Shah Mansoor Zaib Khan	**Published/Printed by:** Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ) GmbH In February 2017
Address: 5th Floor, Evacuee Trust Complex, Sector F-5/1, Islamabad	**Phone:** +92-51-904404	**Location:** All Pakistan, including, FATA, AJK and Gilgit and Baltistan.
Focus of the Study: The study is focused a comparative analysis of the overall TEVT sector institutional infrastructure that may guide the policy makers in designing and implementation of need based training system to bridge skill gaps.		

1. **National Skills Information System (NSIS):** The NSIS will help formulate policies to adjust the demand and supply of skill according to the job requirement and tackle the unwieldy unemployment issue. THE NSIS should be 'one single source' of all information on labor market.
2. **Summary of Comparative Analysis:** The table below exhibit the comparative analysis of Punjab TEVT sector institutes with the highest or the lowest institutions of other provinces:

Sr. #	Description	Institutional Infrastructure of Punjab			Comparison to Other Provinces
		High	**Medium**	**Low**	
1.	Building Condition	78.70	18.40	2.9	The best of all provinces.
2.	Medium of Instruction	English	Urdu	Mixed	In relative terms English may be right medium.
3.	Type of Shift (Morning, Evening or Both)	Both	Morning	Evening	In terms of utilization of space, Punjab also offers 76.6% evening classes.
4.	Drinking Water Facility	96.2%	1.2%	0.1%	Water supply is 100% in Islamabad and then Punjab.
5.	Electricity (Connection, Backup)	99.70%	71.80%	UPS	Islamabad 100% connected but having only 14.7% backups.
6.	Hostel Facility			2.9%	FATA provides 14.3% hostel facility.
7.	Cafeteria/Canteen				54.40% cafeteria facility is available in AJK. Punjab data is not provided.
8.	Transport Facility		22%		Other provinces have insignificant %age.

Sr. #	Description	Institutional Infrastructure of Punjab			Comparison to Other Provinces
		High	**Medium**	**Low**	
9.	Toilet Facility	99.90%			Overall satisfactory with 100% in Islamabad
10.	Internet Facility	99.30%			Punjab is the highest. Islamabad with 90.50%.
11.	Sport Facility			11.10%	FATA with 32.90% is on the top.
12.	Library Facility			9.10%	Islamabad with 37.10%.
13.	First Aid Kit	46%			The next one is Sindh with 20%

3. **Enrollments & Analysis:** Top 10 trades with highest enrollments in Punjab:
1) Beautician, 2) Basic Computer, 3) Vehicle Driving, 4) Auto CAD, 5) Certificate in Computer Application, 6) Web Graphic and Designing, 7) Plumber, 8) Computer operator, 9) Embroidery, 10) CCA (3 Months).

Punjab Youth Workforce Development Project (PYWD) Assessment
The Study provides a comparative analysis of various Infrastructural and enrollment status of TVET institutes of all provinces. For PYWD project NSIS may be linked with the Career Counseling Centers established by PYWD project in the focus districts. The general information on the TEVT infrastructure on Punjab may be used for PYWD Institution Capacity Building interventions. Top 10 trades with highest enrollment data may be used for the training and placement interventions of the PYWD project.

5. Tracer Study		
Organization: Punjab Skills Development Fund (PSDF)	**Author:** Team of Center for Economic Research in Pakistan (CERP)	Published/Printed by: CERP In 2014 & 2015
Address: 21-A, H Block, Dr. Mateen Fatima Road, Gulberg II, Lahore, Pakistan	**Phone:** + 042-111-117-733	Location: Bahawalnagar, Bahawalpur, Lodhran and Muzaffargarh.
Focus of the Study: Under the Skills for Jobs (SFJ) Scheme, PSDF trained 18,500 individuals in 121 trades. RCONS was commissioned to conduct a tracer study of SFJ trainees.		

1. **Skills for Jobs (2012-2013) Scheme:** Under this scheme, PSDF trained 18,500 individuals with the Private Training Providers (Private firms, training institutes, non-government organizations, public private partnerships and d even traditional public sector). The scheme was designed after extracting skills demand data from rigorous surveys that report individual preferences, market vacancies and hiring trends.

2. The Tracer Study was conducted for 1,500 males and 685 females randomly selected trained individuals of Bahawalnagar, Bahawalpur, Lodhran and Muzaffargarh. A total of 68% trainees went for the short courses of 3 months and 32% went for the longer courses of 6 months.

3. The study provides, the high employment rate for male in the following trades:

- Air Conditioning & Refrigeration   90%
- Electronic Media   100%
- Livestock Workers   100%
- Wood Work   100%
- Plumbing & Sanitary Installation   89%
- Services   70%
- Telecommunication   76%
- Veterinary Technician   71%
- Welding   73%
- Commerce   70%

4. The Study provides, the employment results of the trained female.

- Fabric Printing   33%
- Beautician, Customer Service   31%
- Electronic Media   33%
- Food   50%
- Art & Design (Diploma)   57%
- Professional Cooking   46%

Punjab Youth Workforce Development Project (PYWD) Assessment
The data provided in the tracer study will help PYWD project to identify high employment trades for male and female. Although the study is for 2012-13 but it covers most of PYWD focus districts.

6. Demographics of Punjab – Training Needs Assessment at Tehsil Level

Organization: Punjab Vocational Training Council (PVTC)	**Author:** PVTC Team	**Published/Printed by:** PVTC In 2011
Address: 134-A, Madr-e-Millat Road, Industrial Area, Green Town, Lahore	**Phone:** 042-35209200	**Location:** Bahawalpur, Lodhran and Muzaffargarh, Multan.

Focus of the Study: To identify Tehsil Level Demographics of Punjab to carry out Training Need Assessment (TNA) for introduction of demand driven trades at VTIs of the PVTC for identification of potential and employable trades and introduction of new trades at VTIs for better employment opportunities.

PROJECT RELATED TEHSIL WISE RESULTS

District	Tehsil	Current Major Industries	Major Economic Activities	Growing Industries	Potential new identified Trades
Bahawalpur	Ahmed Pur East	Cotton Ginning, Oil Mills, Flour Mills	Agriculture, Live Stock, Poultry farming	Cotton Ginning, Oil Mills, Flour Mills	• General Fitter • Agriculture Field Assistant • Veterinary Assistant • Poultry Farming
	Bahawalpur	Cotton Ginning, Oil Mills, Flour Mills, Ghee Mills, Sugar Mill, Gulistan Textile Mill, Franchises of U Phone Warid, Telenor, Jazz	Agriculture, Live Stock, Poultry farming	Cotton Ginning, Oil Mills, Flour Mills, Ghee Mills, Sugar Mill, Gulistan Textile Mill	• Artificial Insemination • Textile Fitter • Agriculture Field Assistant • Veterinary Assistant
	Hasil Pur	Electronic Industry, Textile Industry, Insurance Companies	Cotton ginning factories, Agriculture & General need based business activities	Agriculture, weaving industries	• Textile Weaving • Agriculture Field Assistant • General Fitter • Textile Fitter
	Khair Pur	Electronic Industry, Textile Industry, Insurance Companies	Cotton ginning factories, Agriculture & General need based business activities	Agriculture, weaving industries	• Computer Application • Textile Weaving • Agriculture Field Assistant • General Fitter • Textile Fitter

PROJECT RELATED TEHSIL WISE RESULTS					
District	**Tehsil**	**Current Major Industries**	**Major Economic Activities**	**Growing Industries**	**Potential new identified Trades**
	Yazman	Electronic Industry, Textile Industry, Insurance Companies,	Cotton ginning factories, Agriculture & General need based business activities	Agriculture, weaving industries	• Textile Weaving • Agriculture Field Assistant • General Fitter • Textile Fitter
Lodhran	Dunya Pur	Cotton, Flour Mills	Agriculture	Live Stock and Wheat	• Veterinary Assistant • Plant Protection • Agriculture Field Assistant
	Kahror Pacca	Ice Factories, Flour Mills, Oil Mills	Agriculture	Ice Factories, Flour Mills, Oil Mills	• Agriculture Field Assistant • Ice Cream Maker • General Fitter
	Lodhran	Oil Mills, Flour Mills	Agriculture and Live Stock	Vegetables	• Plant Protection • Tunnel Farming • Agriculture Field Assistant • Veterinary Assistant
Multan	Jalal Pur	Cotton and Poultry	Cottage Industries	Cotton and Textile Industries	• Textile Weaving • Textile Fitter • Poultry Farming
	Multan	Fertilizer, Chemical, Pharmaceutical and Furniture	Trading and Agriculture	Ceramics, Cosmetics, Pesticides, Food and Beverages	• Chemical Technician • Food and Beverages • Tin Smith • Ceramics
	Shujabad	Cotton and Poultry	Cottage Industries	Cotton and Textile Industries	• Textile Weaving • Textile Fitter • Poultry Farming
Muzaffargarh	Ali Pur	Tobacco, Cotton,	Agriculture	Cotton and Agriculture	• Tunnel Farming • Agriculture Field Assistant • Plant Protection

PROJECT RELATED TEHSIL WISE RESULTS					
District	Tehsil	Current Major Industries	Major Economic Activities	Growing Industries	Potential new identified Trades
	Jatoi	Cottage Industries	Poultry Farming and Agriculture	Cottage Industries	• Textile weaving • Poultry Farming • Agriculture Field Assistant • Veterinary Assistant
	Muzaffargarh	Electronic, Cotton and Food Beverages	Electronic, Cotton and Food Beverages	Electronic, Cotton and Food Beverages	• Industrial Electrician • Electrical wiremen • Textile weaving • Food and Beverages
	Kot Addu	Electrical and Electronics	Electrical and Electronics	Electrical and Electronics	• Electrical Wiremen • Electronics Technician • General Fitter
Punjab Youth Workforce Development Project (PYWD) Assessment					

This study doesn't specifically analyze the prevalent skills gaps, rather provides a detailed training needs assessment, industry-related details and growing industries at tehsil level. It may be useful, through:

- Having details of 'Major Industries' and 'Major economic activities' at a lower level than district.
- The 'Growing Industries' and 'Identified Potential Trades' should be validated through Industry's Feedback (FGD/Questionnaire).
- Performing a comparison that whether the identified potential trades are being offered (PYWD's mapping done of training institutes).
- Adoption of trades having employment potential as part of project's implementation and sharing with stakeholders as part of validation report.

7. Skill Mapping Report		
Organization: Technical Education and Vocational Training Authority (TEVTA)	**Author:** TEVTA Team	**Published/Printed by:** Multiline Group In 2011
Address: 96-H, Gulberg Road, Lahore	**Phone:** 042-99264055-59	**Location**: Bahawalpur, Lodhran and Muzaffargarh, Multan.
Focus of the Study: The focus of the Skill Mapping survey is to explore new opportunities in gainful employment and the identification of the training needs for income and employment generation opportunities.		

The main objectives of the study include:

- Development of an effective placement system that is complemented by career counseling at the micro-level,

- The number of industries, which are operational in the target areas and further projects that might be implemented in the near future need to be assessed for devising an improved state-of-the-art training regime that complements an effective placement system, and

- The courses and trainings offered to the students must be developed and designed in accordance with the existing and future demand of a placement system to ensure 100% employment of graduates.

Economic Landscape of the Focus Districts

District	Industry	Agriculture	Livestock	Traditional Crafts
Bahawalpur	Cotton, Ginning & Pressing, Flour Mills, Cold Storage, Rice Mills, Textile Spinning & Weaving, Cooking Oil	Cotton, Wheat, Sugarcane, Rape/Mustard Seeds, Mango, Citrus and Dates	Cattle, Buffaloes, Sheep, Goats and Poultry	Earthenware (Ceramics), Hand embroidery, Basket making, Mukesh Work, Gota Work, Cholistani Aplec.
Lodhran	Exporting High Quality Cotton Seed and their Processing products Cotton Ginning & Pressing, Flour Mills, Cold Storage	Cotton, Wheat, Rich, Sunflower and Sugarcane. Mango, Citrus and guava	Cattle, Buffaloes, Sheep, Goats, broiler and Poultry	No significant traditional craft.
Multan	Fertilizer, Cosmetics, Glass manufacturing, Cotton production and processing, textile, Flour mills, Sugar and Oil mills, Power Generation.	Wheat, Cotton, Sugarcane, Mangoes and Citrus	Cattle, Buffaloes, Sheep, Goats and Poultry	Ivory bangles, Blue Pottery and tiles, Camel Skin Goods, Carpet weaving, Block printing and embroidery

District	Industry	Agriculture	Livestock	Traditional Crafts
Muzaffargarh	Cotton Ginning & Pressing, Agriculture Implements, Textile Spinning, Rice & Flour Mils	Wheat, Cotton, Sugarcane, Mangoes and Citrus	Cattle, Buffaloes, Sheep, Goats, Broilers and Poultry	No significant traditional craft

TEVTA Initiatives for the Promotion of Employment: Establishment of SLMIS, establishment of Placement Cells to promote Technical & Vocational Employments Akhuwat Interest Free Microfinance Loans.

Industry Feedback to meet Market Demand: Following is important feedback of the Industry to meet market demand:

1. Compulsory practical training/internship training for 3-12 months
2. Students and teachers Industrial/organizational visits
3. Well-equipped lab/shop
4. Complete coverage of courses
5. To link education and training with job market
6. Career Counselling Service

Demand-Driven Trades identified by Academia and Industry

Trades	Bahawalpur	Lodhran	Multan	Muzaffargarh
Cotton & Ginning Technician	59%	57%	65%	57%
Handicrafts Making	55%		49%	
Heating Ventilation Air Conditioning and Refrigeration (HVACR)	51%	51%		37%
Hotel Management	51%	39%		
Dairy & Cattle Farming	47%	47%		
Seed Testing Plant Protection Technician	47%	28%		
Boiler Operator	44%			
Modern Cultivation Techniques	43%			
Paddy Analyst	42%		58%	44%
Fitter General	41%	54%		41%
Tunnel Farming		46%		
Multani Embroidery			61%	
Rice Milling Plant Operator			55%	40%
Industrial Stitching Machine Operators			51%	
Blue Pottery			49%	
Industrial Wilding				51%
Tractor Mechanic				53%
Women Vocational Trades				
Domestic Tailoring	✓	✓	✓	✓
Fabric Printing	✓			
Hand Embroidery	✓	✓	✓	✓

Trades	Bahawalpur	Lodhran	Multan	Muzaffargarh
Spoken English	✓			
Computer Applications	✓		✓	
Beautician		✓	✓	✓
Punjab Youth Workforce Development Project (PYWD) Assessment				

The study is very much aligned with PYWD project goals and objectives. The PYWD project will help TVET sector to meet its recommendations as provided in these four districts studies, such as, career, counseling service, institutional capacity building, on the job training and apprenticeships, demand-driven training, microfinance loans and linkages between training institutes and industry.

ANNEX III. SURVEY QUESTIONNAIRE

Venue: **Date**:

1. Please select the sector: Services   Manufacturing   Agriculture

2. Please mention the sub-sector, you are representing: _____

3. Name of the Respondent: _____

4. Organization and Designation: _____

5. Contact Details – Address & Phone Number: _____

    _____

6. Which are most in-demand skills in your sub-sector? Mention at-least three:

    i.   _____

    ii.   _____

    iii. _____

7. Do you have challenge in hiring required workforce? If yes, please mention at least three challenges:

    i.   _____

    ii.   _____

    iii. _____

8. If you think new courses need to be developed, please mention the trades and duration:

Trades	Duration

9. Which are the training service providers in your area – please mentioned at least two for both public & private sector:

Public Sector	Private Sector

10. Any additional comments:

    i.   _____

    ii.   _____

    iii. _____

ANNEX IV. SKILL GAP ASSESSMENT OF VARIOUS TVET SECTOR STUDIES

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
Workforce Development Study (2013) USAID – Firm Project **Focused on:** Assessment of supply and demand side of the labor market **Districts/Location:** Bahawalpur, Muzaffargarh and Multan	Agriculture, Horticulture & Vegetable	- Fruits & Vegetables crop specific training - Tunnel Farming - Value addition/ fruit & vegetable processing and preservation - Standards and certification & extension services - Tree pruning & canopy management - Processing house/Packhouse workers - Nursery management, floriculture & vegetables seed production	High demand for the trades as identified in the study report. In addition to the identified trades, emphasis was also given to the following trades during the skill gap assessment: • Seed Testing & Seed Storage • Post-Harvest Management (mango) • Pest management • Fruit& Vegetable crop specific training • One Roof Tunnel Farming Most of the trainings are suggested on filed-based training through community/farm field school so that most of the local farmers can get benefit from these trainings. These training can provide benefit young farmers at their door step which they can use not only for their own purposes but also offer their services to others as farm assistants. There is a need for tailor made courses on these disciplines with a duration of one week to two weeks to a month.	Focus Group Discussions was conducted at PAGICA with Academia, PAGICA Professionals, Agriculturist, Farms owners, Dairy Form, Dairy Business holders, & Representatives of Department of Livestock & Dairy Development (*Please refer to Annex 1 – List of Participants*)	The PYWD project is being Implemented in the south Punjab where economy is based on agriculture and approximate 80% farmers have land holdings of 2 to 15 acres. Generally, the farmers are using traditional methods for their agricultural activities, however, some of the progressive farmers are using modern technologies for their agriculture activities and require skilled workforce to manage their farms such as farm management, value addition of their products, and use of new techniques. PYWD's focus is on the employability of the marginalized youth, which can be met by offering tailor-made

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
	Dairy	- Livestock extension technicians (Artificial insemination, disease management & treatment) - Dairy farm management, value addition & marketing - Micro dairy farmers/ entrepreneurs on skills upgradation and capacity enhancement, - Biogas plant technicians, - Cooling plant/ chiller technicians	The proposed trades of the study are in high demand; however, additional trades are also identified during the skill gap assessment: • Cold Storage Operator • Dairy and cattle farming • Disease management and treatment Currently, government is offering veterinary assistant course for 2 years, with a focus to the Artificial Insemination and Vaccination. There is no other institute and appropriate curricula available to offer above mentioned trades including training in the disease management. In the focused districts, most of the villages are having Farm Yard Manure but they are not trained on the utilization of the Farm Yard Manure. In order to properly utilize the Farm Yard Manure, Bio Gas Technique related trainings are required on the best use of Farm Yard Manure for generating the Bio Gas energy.		courses for the young farmers which may help to uplift the marginalized youth of the South Punjab that will lead to increase in the productivity in agriculture sector. Currently, PYWD is offering 6 months courses in 2 trades - Farm Manager and Pest Management. However, the stockholder suggested that PYWD may also consider short course at the field based for the young farmers. These short courses need to be designed as per area and specific crop requirements, such as, for cotton growers, cotton related trainings may be designed and delivered. Although, there is no formal institute available in the PYWD focused districts, however, in order to offer dairy related trainings, it is required to design

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
	Livestock (Meat)	- Meat export oriented training - Buck station & related training - Cold chain technicians by product training - Meat retail workers training	Cold Chain technicians by product training is marked to be the most demand driven trade.		specific short courses at the farm levels on the value addition and value change, disease management etc. For the technical training Livestock department can provide technical assistance and the private sector can offer entrepreneurship and value change training.
	Poultry Sector	- Rural poultry farming - Vaccinator cum extension workers - Sales & retailing - Certification & Standards (Halal, GlobalGAP/ HACCP)	The focus group identified "Rural Poultry Farm Management" as the most demanded trade for 1-3 weeks short training course. It was also highlighted that the poultry farm workers are not trained on the height conditions, food managements, quality assurance etc. In order to minimize the risk in poultry sector, it was suggested to design farm worker training program as the poultry farming is highly sensitive and small mistake can damage the poultry farm	Farm owners and TVET practitioners related to poultry business.	In South Punjab, home based livestock management and poultry is a common practice but there is need to make this practice more strategic so that people especially youth who are involved with these businesses make it more productive. In South Punjab, home based livestock management and poultry is a common practice but there is need to make this practice more strategic so that people especially youth who are involved with these businesses make it more productive.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
					The workforce may be trained at the fishery farm. However, the project may offer soft skills training to the fish farm workers.
	Fisheries	- Mechanical fitting & plant maintenance. - General electrician - Fabrication, welding & pipe work	The trades provided in the study are of general nature. The fish farmers suggested that the fish processing (value chain) is the most needed trade. Also, soft skills training is required for Fisheries business.	Fish farm owners and business enterprises.	The workforce may be trained at the fishery farm. However, the project may offer soft skills training to the fish farm workers. Currently there is no training institute and curricula is available in the focused districts. Due to this reason, there is non-availability of skilled workforce. While the existing workforce is unskilled without having sufficient knowledge and professional attitude. In order to provide a skilled workforce to the industry, there is a need for TVET to train youth of South Punjab in the high demanded trades as identified.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
	Manufacturing & Service	**Cotton Ginning** – Mechanical Fitting & Plant maintenance, fabrication, welding & pipe work, general electrician	Fitter Maintenance- Mechanic, Machine Operators and Ginning Technician are recorded as most highly demand trades.	Owners of Cotton Industry	Currently there is no training institute and curricula is available in the focused districts. Due to this reason, there is non-availability of skilled workforce. While the existing workforce is unskilled without having sufficient knowledge and professional attitude.
		Spinning Sector – General electrician, electronics technician, mechanical fitting & plant maintenance, fabrication, welding & pipe work	Ring department, simplex weaving shed, sizing auto cone, and folding in spinning were reported as high demand trades.	Owners of Spinning Industry	In order to provide a skilled workforce to the industry, there is a need for TVET to train youth of South Punjab in the high demanded trades as identified.
		Weaving Sector – Mechanical maintenance, sectional warping, yearn dyeing.			While new technologies in leather business are emerging with a lot of focus on acquiring technical trained skilled workers in leather trades so that productivity could be increased. However, there is no training institute and curricula is available in the focused districts in the required sector.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
					In order to provide a skilled workforce to the industry, there is a need for TVET to train youth of South Punjab in the high demanded trades as identified.
		Leather tannery – Wet processing, Dry processing, Grading techniques	Leather technician, beam house tanning technician, leather machine operator were high demands in this sector. In addition to this, it was suggested to develop tailor made courses on leather stitching, lasting and cutting along quality control measures in leather business. The duration of courses may be from 6 months to 12 months.	Owners of leather industry	This trade is contingent to the demand from the sheep owners.
		Sheep casing – Food safety and sanitation, selection & grading, salting and preservation	There is no formal demand in this sector	No formal employer or enterprise is available to provide feedback.	Construction is also one of the major trade for the overseas employment. Also considering the boom in hospitality sector, new hotels and restaurants are being constructed. The PYWD project will explore venues for delivery quality training in the construction sector.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
		Construction & Hosing – Operators & maintenance of earth moving & heavy machines, emerging specialized field, marble, synthetic tiles, fixers and aluminum work fabricators	Steel Fixer, Shuttering and Masonry Work along with CAD/CAM Graphic needed for construction & housing sector were recorded as a high demand trades. It was highlighted by the sector specialists that there is inconsistent skilled workforce in construction sector available. Due to traditional masons/labor, the construction industry is not performing well. Moreover, in construction related IT trades female involvement and training needs to be encouraged.	Project Engineers Owners of Constructing Firms	The PYWD project has included the soft skills training including job preparedness trainings in most of its training program. Soft skill is an important element to the PYWD program interventions.
		Soft Skills – Work ethics, time management, networking skills and people management, rights and responsibilities of workers, basic health, emergency and life-saving skills	Soft skills training is required in all sectors.	All sectors	PYWD project has introduced an objective-based self-employment training program where after the completion of training the beneficiary will either receive relevant toolkit or may be linked with MFI. In addition, the project is also offering entrepreneurship training to the potential borrowers.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
	Self-employment	- Private sector engagement - Training Provider's capacity enhancement - Business Development Service - Access to finance	There are specific trades which are considered for the self-employment. Currently, there is no formal private sector engagements, formal BDS and specific funding for the self-employment.	This mode of income generation is being assessed by discussions with TI, partner MFI etc.	PYWD project has introduced an objective-based self-employment training program where after the completion of training the beneficiary will either receive relevant toolkit or may be linked with MFI. In addition, the project is also offering entrepreneurship training to the potential borrowers. As a pilot, the PYWD project may entered into an agreement with COTHM to provide 12 months training in Hospitality sector for the overseas employment. Other avenues for the overseas employment may also be explored subject to project extension.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
	Overseas Employment	- Bilateral agreement with labor importing countries - New training facilities - Develop website - Promotional activities, e.g. Int'l conferences - Linkages between recruiting agencies, training institutes and the aspirants - Promote work from home	The identified interventions for the overseas employment is more relevant for the government as well as for the larger training providers.	The project did not contact stakeholders.	As a pilot, the PYWD project may entered into an agreement with COTHM to provide 12 months training in Hospitality sector for the overseas employment. Other avenues for the overseas employment may also be explored subject to project extension. PYWD project with support of NSIS is linking the career counseling centers with national job placement center. PYWD project is developing mobile application to link youth with employers. The employer may also search suitable candidates and can provide requirements as per their need. This application will be linked with www.jobplacement.gov.pk

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
Skills Trend Analysis - National and International (02/2017) National Vocational & Technical Training Commission (NAVTTC) **Focused on:** Skill demand of job market in various TVET related trades through NSIS. **Districts/Location:** For whole Pakistan	National Skills Information System (NSIS)	All national and international TVET information is available on the website www.skillingpakistan.org maintained by NSIS.	Demand driven workforce as per the requirement of industry/ employer. Establish data collection or management system for supply and demand. Align TVET Plans, policies and programs with Skills Information System (SIS) and establish and facilitate career guidance, placement services.	PYWD is working in collaboration with NSIS for the Career Counseling activities.	Please refer to comment provided above with Construction and Housing and Agriculture.
	Workforce Demand in Top 10 Construction, Manufacturing and Services Trades	- Driver - Mechanic - Mason - Steel Fabricator - HTV Driver - Carpenter - Electrician - Agriculture Field Assistant - Plumber - Machine Operator	Steer Fabricator (Fixer), Machine Operator, Mason, Agriculture Field Assistant and Mechanic are high demanded trades	Project Engineers Owners of Constructing Firms and Agriculturalist	While this study was conducted for Lahore and Faisalabad, however, the PYWD project may gain from the study for its focus districts. The project is actively involved with the garment and textile industry of south Punjab. In this regard, the project has already imparting trainings for the job placement, self-employment including entrepreneurship with market linkages.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
Producing Skilled Workforce for Potential Economic Sectors in Punjab (11/2016) Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ) BmbH **Focused on:** Identification of high and well-paid employment potential, required trades & professions **Districts/Location:** Lahore, Faisalabad, Gujranwala, Sailkot	Textile/readymade Garments (Woven/Kitted)	- Industrial stitching machine operator - Stitching machine mechanic - Apparel Supervisor - Pattern drafting & cutting - CAD/ CAM pattern design - Quality control & QA - Planning & production control - Knitting machine operator - Machine & hand embroidery - Computerized industrial embroidery - Professional garment washing	As per the assessment / validation results of the South Punjab textile mills representatives, the stakeholders emphasized on the following high demand driven trades in textiles; • Stitching garments • Garments Inspection • Packing • Machine & Hand Embroidery • Knitting & Machine Operator It was also suggested to provide short courses in specific trades.	Owners of Textile Mills of South Punjab	While this study was conducted for Lahore, however, the PYWD project may gain from the study for its focus districts. As most of the trades are in high demand and also training facilities are available in PYWD focus districts, the project is actively involved in imparting training in light engineering sector. The project will keep exploring more ventures for the training needs and job placements in the light engineering sector.
	Light Engineering / Auto parts. Cars and Light Commercial Vehicles (LCVs) Motorcycle part Parts for Two Wheelers Three Wheelers Tractor Parts Parts for Trucks and Buses	- Machine tool operators, - Black smith - Bench fitter - Welders - CNC operators - PLC technicians - Industrial electrician - CAD/CAM technician - Product Designer - Present CVT courses can continue as well.	The validation results pointed out that the following are high demand driven trades in light engineering sector; • Welding • Industrial Electrician In addition to the above trades, the following trades were also identified as high demanded trades: • Denting & Painting • Motorcycle and Car Mechanic	Owners of light engineering firms of the South Punjab	While this study was conducted for Gujranwala, however, the PYWD project utilized for the south Punjab in related trades. In the PYWD focus districts, there is a long history of ceramic, glazing products. The project is imparting training in Blue Pottery.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
	Parts for After Sales Market		• Solar Panel Technician • Marketing & Sales in Light Engineering Sector • Engine Boring • Engine head-set grinding • Automobile Engineering • Automobile Hydraulic • Automobile Car Computer Electrician In addition to the technical training, On-job training at the industry is also recommended.		
	Manufacturing / Ceramics Industry: **Electric Insulators** Refractory/ fire, insulation bricks)	- Production workers - Glazing supervisor, - Body supervisor, - Kiln supervisor, - Designing or molding in-charge - Plant and equipment maintenance technician	The feedback received from the stakeholder's reports that the Glazing supervisor is the high demand trade. In addition, following high demand trades were also identified: • Kashigiri, • Designing with calligraphy on camel skin	Owners of Ceramic / Blue Pottery Industry	While the Metal Fabrication study was conducted for Gujranwala and Surgical Instruments for Sialkot, however, the PYWD project utilized (where applicable) for the south Punjab related trades. The project is actively involved in imparting training in light engineering sector. The project will keep exploring more ventures for the training needs and job placements in the light engineering and leather sector.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
	Light Engineering / Metal fabrication	- Machine tool operators, - Sheet metal worker - Electrician - Foundry workers - Bench fitter - Welders - CNC operators - PLC technicians - Industrial electrician - CAD/CAM technician - Product designer - Computer aided product/pattern designer - Dies and molds technician	The validation results pointed out that the following are high demand driven trades in light engineering (Metal Fabrication) sector; • Sheet metal worker • Electrician • Welding • Industrial electrician • Computer aided product/pattern designer For the Surgical Instruments, following trades were identified as the high demand trades: • Fitters • Machine Operators In addition to the technical training, On-job training at the industry is also recommended	Owners of light engineering firms of the South Punjab	While the Metal Fabrication study was conducted for Gujranwala and Surgical Instruments for Sialkot, however, the PYWD project utilized (where applicable) for the south Punjab related trades. The project is actively involved in imparting training in light engineering sector. The project will keep exploring more ventures for the training needs and job placements in the light engineering and leather sector. The PYWD project is imparting soft skills and entrepreneurship training including job preparedness training, which partially covers skills set for these trades.
	Light Engineering / Surgical Instruments	- Grinders - Polishers - Filers - Fitters - Dyers & mold makers - Machinists - Machine operators - Accountants, - Merchandising / export - documentation			
	Manufacturing / Sports Goods	- Machine stitching operator - Hand stitching - Pattern maker - Cutter - Pattern design and cutter - Wood turners - Wood workers - Cutting and Screen printing - Woodworkers for cricket bats, including jointers,	The Sport Goods are specific for the sport industry in Sailkot. Some of the trades are relevant to the leather industry. Please refer above to the leader sector.	Please refer to leather sector above.	

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
		samplers, polishers, blade shapers, handle makers - Workers for composite based products including mold masters and tube machine operators - Export Managers - Plant & equipment maintenance technician			
	Services / Logistics, Customer Services	- Trades/ skills required by the sector include: - Loaders - Drivers - Green logistics management - Custom house brokerage - Dangerous goods packing and handling - Safety and security management - Sales agents - Warranty handling & management (repair/ replacement shipment handling) - Know-how of industry-relevant IT systems - Diploma in Freight Forwarding	This study is for Karachi, Lahore, Sailkot and Faisalabad where large industrial units are operating. While there are industrial units in south Punjab but there is no formal service/logistics sector in south Punjab. We could not find relevant stakeholder to validate the trades.	N/A	This study is for Sailkot. Please refer to Textile and Leather sector above.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
	Textile / Leather Sport Goods, Leather Sport Wear	- Machine stitching operators - Gloves pattern design and making, - Leather cutters - Hand & machine embroiders - Plant & equipment maintenance technicians	Please refer to Textile and Leather sector above.	Please refer to Textile and Leather sector above.	This study is for Lahore, Faisalabad, Gujranwala, Sailkot and Rawalpindi. Please refer to Construction and Housing sector above.
	Construction and Housing	- Masonry, Carpenters - Plumbing - Tile Fixers - Building Electricians - False Ceiling - Timber Flooring - Scaffolding workers	Please refer to Construction and Housing sector above.	Please refer to Construction and Housing sector above.	The PYWD conducted a detailed institutional gap analysis of the TVET institutions of focused districts. Please refer to following chapter for detailed information. On the training side, the project is actively involved in imparting trainings in identified high demand trades.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
Comparative Analysis of TVET sector in Pakistan (02/2017) National Vocational & Technical Training Commission (NAVTTC) **Focused on:** Comparative analysis of overall TEVT sector institutional infrastructure **Districts/Location:** All Pakistan, including, FATA, AJK and Gilgit and Baltistan	Comparative analysis of Punjab TEVT sector institutes with the highest or the lowest institutions of other provinces. Identified 10 top trades	1. Punjab TVET Institutional Capacity 2. The study also refers to 10 - Beautician - Basic Computer - Vehicle Driving - Auto CAD - Certification in Computer Application - Web Graphic and Designing - Plumber - Computer operator - Embroidery - CCA (3 months)	1. The study provided a comparative analysis on the basic infrastructure of Punjab TVET institutes. 2. High Demanded trades are: • Beautician • Basic Computer (Female) • Auto CAD • Web Graphic & Designing • Embroidery	TVET sector Training Providers operating in South Punjab Please refer above for the trades.	The PYWD project will explore training in Livestock sector. For more detailed, please refer above on the livestock section.
Tracer Study (Male 2014 & Female 2015) Punjab Skill Development Fund (PSDF) **Focused on:** Tracer Study for the Skills for Jobs program. **Districts/Location:** Bahawalnagar, Bahawalpur, Lodhran and Muzaffargarh	High employment male trades	- Air Conditioning & Refrigeration - Electronic Media - Livestock Workers - Wood Work - Plumbing & Sanitary Installation - Services - Telecommunication - Veterinary Technician - Welding - Commerce -	From the assessment above in various sectors, the following trades are identified as high demand trades: • Livestock Workers • Welding	Please refer above for the trades.	The PYWD project is imparting training on the identified trades.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
	High employment female trades	- Fabric Printing - Beautician, - Customer Service - Electronic Media - Food - Art & Design (Diploma) - Professional Cooking	From the assessment above in various sectors, the following trades are identified as high demand trades: • Beautician • Food • Professional Cooking	Please refer above for the trades.	The PYWD project in imparting trainings in various trades including identified in the study. The project will keep exploring avenues for the additional trainings.
Demographics of Punjab – Training Needs Assessment at Tehsil Level (2011) Punjab Vocational Training Council (PVTC) **Focused on:** Training Needs Assessment (TNA) for the introduction of demand driven trades **Districts/Location:** Bahawalpur, Lodhran and Muzaffargarh, Multan.	Bahawalpur	- Textile & General Fitter - Agriculture Field Assistant - Veterinary Assistant - Poultry Farming - Artificial Insemination - Textile Weaving - Computer Application	All identified trades are in high demand:	As per feedback from the various stakeholders above.	The PYWD project in imparting trainings in various trades including identified in the study. The project will keep exploring avenues for the additional trainings.
	Lodhran	- Veterinary Assistant - Plant Protection - Agriculture Field Assistant - Ice Cream Maker - General Fitter - Plant Protection - Tunnel Farming	Following are the high demand trades • Plant Protection • Agriculture Field Assistant • Tunnel Farming • General Fitter	As per feedback from the various stakeholders above	The PYWD project in imparting trainings in various trades including identified in the study. The project will keep exploring avenues for the additional trainings.
	Multan	- Textile Weaving - Textile Fitter - Poultry Farming - Chemical Technician - Food & Beverages - Tin Smith - Ceramics	Following are the high demand trades • Textile Weaving • Textile Fitter • Poultry Farming • Food & Beverages • Ceramics	As per feedback from the various stakeholders above	The PYWD project in imparting trainings in various trades including identified in the study. The project will keep exploring avenues for the additional trainings.
	Muzaffargarh	- Tunnel Farming - Plant Protection - Textile weaving - Poultry Farming	Following are the high demand trades • Tunnel Farming • Plant Protection	As per feedback from the various stakeholders above	PYWD project intends to develop mobile application to link youth with employers. The

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
		- Agriculture Field Assistant - Veterinary Assistant - Industrial Electricians - Electrical Wiremen - Food & Beverages - Electrical Wiremen - Electronics - Technicians - General Fitter	• Textile Weaving • Poultry Farming • Agriculture Field Assistant • Industrial Electricians • Food & Beverages • General Fitter		employer may also search suitable candidates and can provide requirements as per their need. This application will be linked with www.jobplacement.gov.pk for sustainability.
Skill Mapping Report (2011) Technical Education & Vocational Training Authority (TEVTA) **Focused on:** With placement prospective, the report focused to explore new opportunities in gainful employment, TNA for income and employment generation opportunities. **Districts:** Bahawalpur, Lodhran, Muzaffargarh and Multan.	Promotion of Job Market	- Establishment of Skilled Labor Market Information System - Establishment of Placement Cell - Akhuwat MF interest-free loans	TEVTA already have a functional SLMIS system which is currently operational, it caters both job seekers and employers.	TEVTA management	The PYW Delivery model appropriately address industrial feedback, such as, the project includes apprenticeships, exposure visits of school students to TVET institutes and PYWD trainees selected visits to the businesses/industry, Institutional Capacity Building of 22 institutes including establishment of 8 Career Counseling Centers (CCC) and CC Services and job placements.
	Industry feedback to meet Market Demand	- Compulsory practical training/internship training for 3-12 months - Students and teachers Industrial/organizational visits - Well equip lab/shop	The industry feedback on the TVET sector trainings and job placement model is appropriately mentioned in the study	On-going process as part of PYWD project consultative process with Training Providers and Businesses.	The PYWD project in imparting trainings in various trades including identified in the study. The project will keep exploring avenues for the additional trainings.

Description of the Study	Sectors	Study Outcome	Validation/Assessment	Means of Validation/Assessment	Relevance to PYWD project
		- Complete coverage of courses - To link education and training with job market - Career Counselling Service			
	Demand-driven Trades for Male	- Cotton & Ginning Technician - Handicrafts Making - HVACR - Hotel Management - Dairy & Cattle Farming - Seed Testing Plant Protection Technician - Boiler Operator - Modern Cultivation Techniques - Paddy Analyst - Fitter General - Tunnel Farming - Multani Embroidery - Rice Milling Plant Operator - Industrial Stitching Machine Operators - Blue Pottery - Industrial Wilding - Tractor Mechanic	The following are high demand trades: • Cotton & Ginning Technician • Hotel Management • Dairy & Cattle Farming • Seed Testing Plant Protection Technician • Paddy Analyst • Fitter General • Tunnel Farming • Rice Milling Plant Operator • Industrial Stitching Machine • Operators • Blue Pottery • Tractor Mechanic	As per feedback from the various stakeholders above.	The PYWD project in imparting trainings in various trades including identified in the study. The project will keep exploring avenues for the additional trainings.
	Demand-driven Trades for Female	- Domestic Tailoring - Fabric Printing - Hand Embroidery - Spoken English - Computer Applications - Beautician	The following are high demand trades: • Hand Embroidery • Beautician • Computer Applications	As per feedback from the various stakeholders above	

ANNEX V. ASSESSED TRAINING INSTITUTES IN KEY DISTRICTS

TEVTA Training Institutes in PYWD-Focus Districts

#	Name and Address of Institute	District	Trades	Sectors	Support Required
1	Institute of Blue Pottery Development, Multan	Multan	Kashigiri	Blue Pottery	Equipment required, ToT
			Molding & Modeling in Ceramics	Blue Pottery	Minor equipment required, ToT
			Body Preparation	Blue Pottery	No support required
			Firing Techniques	Blue Pottery	No support required
			Calligraphy	Blue Pottery	No support required
			HSE (Safety Inspector)	Blue Pottery	multimedia, manuals & books required, ToT
2	Pak German Institute of Cooperative Agriculture, Multan	Multan	Diploma in Agricultural Sciences	education	Classroom infrastructure required
			F.Sc Pre-Agriculture	education	No support required
			Tunnel Farming	Agriculture	No support required
			Pest Management	Agriculture	No support required
			Farm Manager	Agriculture	shortfall of a few equipment
			Computer Application	Computer Skills	A few equipment for the lab is required
			Welder	Welder	welding plant required
			Motorcycle Mechanic	Mechanic	Equipment required, ToT
			Auto Mechanic	Mechanic	Equipment required, ToT
3	Government College of Technology, W, Near GPO, Bahawalpur	Bahawalpur	Dress Designing & Making	Tailoring	No support required
			DCOM	Education	
			Matric Tech	Education	
			DAE CIT	Education	
			DAE Architecture	Education	Display of building material required; few equipment/tools shortfall
			English Language	Education	No support required
4	Government College of Technology, University Road, Bahawalpur	Bahawalpur	Auto & Farm Technology	Agriculture	No support required
			Civil Technology	Education	
			Electrical Technology	Education	
			Mechanical Technology	Education	

#	Name and Address of Institute	District	Trades	Sectors	Support Required
			Electronics Technology	Education	
			Computer Information Technology	Education	
			Telecommunication Technology	Education	
5	Govt. Agricultural Machinery Training School, Bahawalpur	Bahawalpur	Tractor Operator	Agriculture	No support required for current trades, Auto driving and Auto related courses to initiate
			Tractor Mechanic	Agriculture	
			Auto Electrician	Agriculture	
6	Government Technical Training Centre Female Kahror Pacca, Bahawalpur	Bahawalpur	Computer Application	Computer Skills	Computers & classroom furniture required
			Tailoring	Tailoring	Machines & Equipment required
			Beautician	Beautician	No support required
			Spoken English	Education	No support required
7	Government Technical Training Centre (Male)Kahror Pacca, Bahawalpur	Bahawalpur	Electrician	Electrical	No support required; classroom infrastructure requested
			Plumber	Plumber	A few equipment for the lab is required
			Welder	Welder	No support required
			Home Appliances	Electrical	
8	Govt. College of Technology (Boys) Alipur Bypass, DG Khan Road, Muzaffargarh	Muzaffargarh	Civil Technology (03-Year)	Education	No support required
			Mechanical Technology (03 Year)	Education	
			Electrical Technology (03 Year)	Education	
9	Govt. Technical Training Institute (W) Multan	Multan	Dress Making	Tailoring	All items not in working conditions except 5Computers, 1Fax Machine, 1 Multimedia & 15 Sewing Machines
			Computer Operator	Computer Skills	
			Hair & Skin Care	Beautician	
			Office Management Assistant	other	
10	Govt. Technical Training Institute Bahawalpur	Bahawalpur	Electrician	Electrical	Retooling for trade of Welding, AutoCAD, Electronic Applications & Mechanical required
			Draftsman Civil (AutoCad)	other	
			Draftsman Mechanical	Mechanic	
			Electronics Applications	Electrical	
			Welder	Welder	

#	Name and Address of Institute	District	Trades	Sectors	Support Required
			Machinist	Mechanic	
11	Govt. Technical Training Institute, Near Stadium Road, Behind Commerce College, Lodhran	Lodhran	Electrician	Electrical	Retooling for trade of Electrician, Fitter General &CCA and all trade books
			Fitter General	Mechanic	
			Welding	Welder	
			Computer Application	Computer Skills	
12	GVTIW (RMGTC) Farid Gate, Bahawalpur	Bahawalpur	Basic Dress Designing & Making	Tailoring	Minor uplift of building; white wash, renovation and items for trade of beautician required
			Beautician	Beautician	
			Domestic Tailoring	Tailoring	
			Beautician	Beautician	
			Domestic Tailoring	Tailoring	
13	Govt. Vocational Training Institute Women Yazman	Bahawalpur	Beautician	Beautician	No shortfall, 12 sewing machines are serviceable
			Tailoring	Tailoring	
			Matric Vocational	Education	
14	GVTI(W) Moton Mull Lodhran	Lodhran	Beautician	Beautician	Sewing Machines are serviceable and Embroidery machines are required for new trades
			Domestic Tailoring	Tailoring	
			Matric Vocational	Education	
			Beautician	Beautician	
15	Govt. College of Technology, QasimPur colony, Bahawalpur Road, Multan	Multan	DAE Chemical	Education	Retooling for chemical technology & computer lab
			DAE Civil	Education	
			DAE Mechanical	Education	
			DAE Electrical	Education	
			DAE Electronics	Education	
			DAE Textile (Spinning)	Education	
			DAE Textile (Weaving)	Education	
16	Govt Technical Training Institute, Jhang Road, Muzaffargarh	Muzaffargarh	Electrician	Electrical	No support required
			HVACR	Electrical	
			Electronics	Electrical	
			Machinist	Mechanic	

#	Name and Address of Institute	District	Trades	Sectors	Support Required
			Auto Mechanic	Mechanic	
			Computer Application	Computer Skills	
17	Govt. Technical Training Institute, Kot Addu, Layyah Road, Muhammad Abad Chowk Sarwar Shaheed, Muzaffargarh	Muzaffargarh	Auto Mechanic (6 Months)	Mechanic	No support required
			Electrician (6 Months)	Electrical	
			Electronics	Electrical	
			Motor Winding (6 Months)	Electrical	
			Computer Application	Computer Skills	
18	GVTI (W), RMGTC, AliPur, By Pass Road, Muzaffargarh	Muzaffargarh	Dress Making	Tailoring	No support required
			Domestic Tailoring	Tailoring	
19	GVTI (W) Near Faisal Stadium, Muzaffargarh	Muzaffargarh	Matric Vocational	Education	No support required
			CVG	other	
			Tailoring (6 Months)	Tailoring	
			Beautician (6 Month)	Beautician	
20	Govt. Vocational Training Institute (W) Kot Addu, Ittefaq Colony, Ward No.10, Muzaffargarh	Muzaffargarh	Matric Vocational	Education	TOT, New furniture, uplifting, Multimedia are required
			Fashion Designing	Tailoring	
			Domestic Tailoring	Tailoring	
			Beautician	Beautician	
			Fabric Printing/Machine Embroidery	Hand & Machine Embroidery	
21	Govt. Vocational Training Institute (W) Near Suleman Hospital, AliPur, Muzaffargarh	Muzaffargarh	Beautician	Beautician	Multimedia & white board required. Shortfall of machines/Equipment for all trades
			Domestic Tailoring	Tailoring	
			Computer Application	Computer Skills	
22	GTTC Kot Addu, Near Ghala Mandi, Kot Adu, Muzaffargarh	Muzaffargarh	Wireman	Electrical	Retooling for four trades required
			Welding	Welder	
			Turner	Mechanic	
			Auto & Farm	Agriculture	
			Electrical Wiring Technician	Electrical	
			Machinist	Mechanic	
			Electrician	Electrical	

#	Name and Address of Institute	District	Trades	Sectors	Support Required
			Auto Mechanic	Mechanic	
23	GVTI Kot Adu, Rungpur Road, Muzaffargarh	Muzaffargarh	Beautician (1Year)	Beautician	1 Projector for CCA/IT required
			Computer Application	Computer Skills	
			Domestic Tailoring (6 Months)	Tailoring	
			Beautician (6 Months)	Beautician	
			Fashion Designing (6 Months)	Tailoring	
24	GTTC (w) Jatoi, Near Fezan-e-Madina, Permat Road, Muzaffargarh	Muzaffargarh	Tailoring (6 Months)	Tailoring	Retooling required for Tailoring & Machine Embroidery
			Machine Embroidery (6 Months)	Hand & Machine Embroidery	
25	GTTI Doulat Gate, Multan	Multan	Machinist	Mechanic	Introduce HVACR
			Electrician	Electrical	
			Welding	Welder	
			Draftsman Mechanical	Mechanic	
			Electronics Applications	Electrical	
			Fitter General	Mechanic	
			Computer Application	Computer Skills	
26	Govt Vocational Trg Institute for Women Qasimpur Colony Multan (old)	Multan	Matric Vocational	Education	required upgraded sewing and embroidery machines
			Fashion Designing	Tailoring	
27	Govt. Technical Training Centre Shehr Sultan, Jatoi, Muzaffargarh	Muzaffargarh	Wireman	Electrical	IT tools required as this area has huge demand for computer applications course.
			Welding	Welder	
			Machinist	Mechanic	
			Auto & Farm	Agriculture	
28	GTTC Male Jatoi, Near Fezan-e-Madina, Permat Road, Muzaffargarh	Muzaffargarh	Computer Application	Computer Skills	No of 8 Computers required
			Electrician	Electrical	
			Welding	Welder	
29		Multan	Matric Vocational	Education	Retooling of existing trade
			Fashion Designing	Tailoring	

#	Name and Address of Institute	District	Trades	Sectors	Support Required
	GVTI (W) Qammar Chaki Jalilabad Colony Dera Ada Multan		Beautician	Beautician	
			Domestic Tailoring	Tailoring	
30	GVTI (W) RMGTC, Shah Rukn-e-Alam Colony	Multan	Dress Making	Tailoring	Trade books and demand for new trades i.e. Computer, cooking & Baking
			Beautician	Beautician	
			Industrial Stitching Machine	Tailoring	
			Fashion Designing	Tailoring	
31	Govt. Technical Training Center New Central, Jail Road, Multan	Multan	Motor Winding	Electrical	No support required
			Motor Cycle Mechanic	Mechanic	
			Home Appliance Repair	Electrical	
			Industrial Stitching	Tailoring	
			Domestic Tailoring	Tailoring	
32	Govt. Technical Training Centre Jilalpur Pirwala, Multan	Multan	Welder	Welder	No support required
			Motor winding	Electrical	
			Motor Cycle Mechanic	Mechanic	
			Home Appliances Repair	Electrical	
			Electrician	Electrical	
			Machinist	Mechanic	
			Plumber	Plumber	
33	GTTC, Women Jail, Multan	Multan	Beautician	Beautician	Support required with lab fixtures
			Fashion Designing	Tailoring	
			Machine Embroidery	Hand & Machine Embroidery	
34	Government Technical Training Institute, Multan road near ghalla goddam, jalalpur pirwala District Multan	Multan	HVACR (6- Months)	Electrical	No support required
			Machinist (6- Months)	Mechanic	
			Motor winding (6- Months)	Electrical	
			Home Appliances (6- Months)	Electrical	
			Electrician (6- Months)	Electrical	

#	Name and Address of Institute	District	Trades	Sectors	Support Required
			Computer Application	Computer Skills	
			Web designing (6- Months)	Computer Skills	
35	Government Technical Training Institute (Women) Block-J, Phase-II, Shah Rukn-e-Alam Colony, Multan.	Multan	Computer Operator	Computer Skills	No support required
			Office Management Assistant	Other	
			Dress Making	Tailoring	
			Hair & Skin Care	Beautician	
			Commercial Arts & Graphics	Computer Skills	
36	Government Vocational Training Institute Jalalpur Pirwala, Near ghala godam Multan road Jalal pur pir wala district Multan.	Multan	Matric Vocational	Education	No support required
			Web Designing	Computer Skills	
			Beautician	Beautician	
			Domestic Tailoring	Tailoring	
37	Govt, Technical Training Centre, Near NADRA Office. Yazman.	Bahawalpur	Wire man	Electrical	No support required
			Auto Mechanic Petrol	Mechanic	
			Turner	Mechanic	
38	Govt. Technical Training Centre (Female) Near ZTBL Thana Mor Khairpur Tamewali District Bahawalpur	Bahawalpur	Computer Application	Computer Skills	Retooling required for Beautician, Domestic Tailoring, CCA
			Domestic Tailoring	Tailoring	
			Beautician	Beautician	
39	Govt. Vocational Training Institute women, Near GPO Opp. Niaz Petrol Pump Bahawalpur	Bahawalpur	Matric Vocational	Education	To introduce Jeweler Designing according to the tradition of BahawalPur
			Fashion Designing	Tailoring	
			Beautician	Beautician	
			CBT	other	
40	GVTIW, House No: B IX 153/1 Qurishabad Ahmed Pur East.	Bahawalpur	Computer Application	Computer Skills	Shortfall of Machinery:3 Computers and 4 Sewing Machines
			Beautician	Beautician	
			Tailoring	Tailoring	
41	Govt.Technical Training Centre (M),Near ZTBL Khairpur Tamewali district Bahawalpur	Bahawalpur	Motor Winding	Electrical	No support required
			Mobile Repairing	Electrical	
			Electrician	Electrical	

#	Name and Address of Institute	District	Trades	Sectors	Support Required
			Motor Winding (Evening)	Electrical	
			Mobile Repairing (Evening)	Electrical	
			Motor Winding (Evening)	Electrical	
42	Govt.Technical Training Center Near Qanchi Moor Ahmedpur East	Bahawalpur	Wiremen	Electrical	Huge demand in local market / Industry for HVACR
			Turner	Mechanic	
			Welder	Welder	
			Home Appliances	Electrical	
			Electrician	Electrical	
43	Govt. Technical Training Center, Old Building RHC Khror pacca Road Dunyapur	Lodhran	Wiremen	Electrical	No shortfall of equipment
			Auto Mechanic	Mechanic	
			Turner	Mechanic	
			Welding	Welder	
			Electrician	Electrical	
			Motor winding	Electrical	
44	Govt. Technical Training Center, Near Sabzi Mandi Bahawalpur Road, Hasilpur	Bahawalpur	Wireman	Electrical	Entire building required uplift.
			Welding	Welder	
			Turner	Mechanic	
			Auto & Farm Machinery	Agriculture	
			Electrician	Electrical	
			Home Appliance Repair	Electrical	
45	Government Technical Training Institute, Hasilpur Road Near Shell Petrol Pump, Bahawalpur	Bahawalpur	Electrician	Electrical	Courses as per new technology and All trades specific books are required.
			Draftsman Civil	other	
			Draftsman Mechanical	other	
			Electronics Application	Electrical	
			Welder	Welder	
			Machinist	Mechanic	
46		Lodhran	Matric Vocational	Education	No support required
			Fashion Designing One Year	Tailoring	

#	Name and Address of Institute	District	Trades	Sectors	Support Required
	Govt. Vocational Training Institute (W), Near D C Office, Lodhran		Beautician One Year	Beautician	
			Domestic Tailoring Tevta Short (6M)	Tailoring	
			Beautician Tevta Short (6M)	Beautician	
			Computer Application	Computer Skills	
			Computer Application	Computer Skills	
			Beautician (6M)	Beautician	
			Professional Cooking (6M)	other	
			Spoken English (IDD 3 Month)	Education	
			Domestic Tailoring IDD (6M)	Tailoring	
47	Government Vocational Training Institute, (Women), Yazman, Bahawalpur	Bahawalpur	Computer Application	Computer Skills	Class room infrastructure and a few equipment's required
			Domestic Tailoring	Tailoring	
			Beautician	Beautician	

PVTC Training Institutes in PYWD-Focus Districts

Sr No	Name and Address of Institute	District	Trades	Sectors	Support Required
1	Vocational Training Institute, Khanewal Road, Multan	Multan	Computer Application & Office Professional	Computer Skills	Doesn't need support
			Clinical Assistant	Health care	Support requested for additional machines & equipment for the trade
			Computer Hardware / Network Professional	Computer Skills	Support requested for additional machines & equipment for the trade
			Dress Making	Tailoring	Support required to outfit sub-campus
			Industrial Electrician	Electrical	Not a significant support required
			Motorcycle Mechanic	Mechanic	Not a significant support required
			Refrigeration & Air Conditioning	Electrical	Not a significant support required
			Repair & Maintenance of Electrical Appliances	Electrical	Not a significant support required
			Web & Graphics Designing	Computer Skills	No support required
			Welder / Fabricator	Welder	Support requested for retooling of shortfall
2	Vocational Training Institute, Khokhraan, Multan	Multan	Beautician	Beautician	No support required
			Computer Application & Office Professional	Computer Skills	Support requested for machines & equipment for the trade
3	Vocational Training Institute, Multan City	Multan	Computer Application & Office Professional	Computer Skills	Retooling for the trade requested
			Dress Making	Tailoring	No support required
4	Vocational Training Institute, Kohiwala, Multan	Multan	Computer Application & Office Professional	Computer Skills	Retooling support requested for outfitting the lab as per curricula
			Dress Making	Tailoring	

Sr No	Name and Address of Institute	District	Trades	Sectors	Support Required
			Beautician	Beautician	
5	Vocational Training Institute, Shujabad, Multan	Multan	Beautician	Beautician	shortfall of a few classroom infrastructure
			Clinical assistant	Health care	Well-equipped; few damaged equipment
			Computer Application & Office Professional	Computer Skills	Well equipped; few damaged equipment
			Dress Making	Tailoring	Well equipped
			Repair & Maintenance of Electrical Appliances	Electrical	Well-equipped; few damaged equipment
6	Vocational Training Institute, Jalalpur Pirwala, Multan	Multan	Beautician	Beautician	Well equipped; few damaged equipment
			Computer Application & Office Professional	Computer Skills	Well equipped; few damaged equipment
			Dress Making	Tailoring	Well equipped; few damaged equipment
7	Vocational Training Institute, (F), Multan	Multan	Beautician	Beautician	Equipment required for strengthening beautician trade and books for library
			Dress Making	Tailoring	
			Computer Application & Office Professional	Computer Skills	
			Fashion Designing	Tailoring	
8	Vocational Training Institute, (F), Mumtazabad, Multan	Multan	Beautician	Beautician	Equipment required for strengthening beautician trade and books for library
			Embroider/Domestic Tailoring	Tailoring	
			Food Cooking and Kitchen Organization	Other	
9	Vocational Training Institute, Musafirkhana, Bahawalpur	Bahawalpur	Beautician	Beautician	No support required
			Dress Making	Tailoring	No support required
10	Vocational Training Institute, Ahmedpur East, Bahawalpur	Bahawalpur	Beautician	Beautician	No support required
			Computer Application & Office Professional	Computer Skills	
			Dress Making	Tailoring	

Sr No	Name and Address of Institute	District	Trades	Sectors	Support Required
			Refrigeration & Air Conditioning	Electrical	
			Repair & Maintenance of Electrical Appliances	Electrical	
			Web & Graphics Designing	Computer Skills	
11	Vocational Training Institute, UCH Sharif, Bahawalpur	Bahawalpur	Beautician	Beautician	No support required
			Computer Application & Office Professional	Computer Skills	Support requested for lab establishment
			Dress Making	Tailoring	No support required
12	Vocational Training Institute, Hasilpur, Bahawalpur	Bahawalpur	Beautician	Beautician	Well equipped; some minor equipment required
			Computer Application & Office Professional	Computer Skills	Shortfall of 50% equipment
			Repair & Maintenance of Electrical Appliances	Electrical	Equipment required for learning purpose
13	Vocational Training Institute, Khairpur Tamewali, Bahawalpur	Bahawalpur	Computer Application & Office Professional	Computer Skills	shortfall of 70% equipment
			Dress Making	Tailoring	Does not required support
14	Vocational Training Institute, Yazman	Bahawalpur	Computer Application & Office Professional	Computer Skills	No support required
			Domestic Tailoring	Tailoring	
			Dress Making	Tailoring	
			Embroidery	Hand & Machine Embroidery	
			Repair & Maintenance of Electrical Appliances	Electrical	
15	Vocational Training Institute, Headrajkan, Bahawalpur	Bahawalpur	Beautician	Beautician	50% shortfall of equipment
			Computer Application & Office Professional	Computer Skills	Equipment/machines required
			Dress Making	Tailoring	Machine required
16	Vocational Training Institute, Lodhran	Lodhran	Clinical assistant	Health care	Support in bridging the shortfall in machines & equipment
			Computer Hardware / Network Professional	Computer Skills	Support in bridging the shortfall in machines & equipment

Sr No	Name and Address of Institute	District	Trades	Sectors	Support Required
			Repair & Maintenance of Electrical Appliances	Electrical	Support for machines & equipment required
			Textile Weaving	other	Support for establishing the lab required
17	Vocational Training Institute, Female, Lodhran	Lodhran	Beautician	Beautician	Minor equipment required
			Computer Application & Office Professional	Computer Skills	IT accessories required
			Dress Making	Tailoring	Machines required for labs
18	Vocational Training Institute, Gailay Waal, Lodhran	Lodhran	Dress Making	Tailoring	Machines required for labs; Books required for Labs
			Embroidery	Hand & Machine Embroidery	Minor equipment required
19	Dr. Muzaffar Saeed Vocational Training Institute Muzaffargarh	Muzaffargarh	Computer Application & Office Professional	Computer Skills	50% shortfall of equipment
			Repair & Maintenance of Electrical Appliances	Electrical	Machines required for learning purpose
			Clinical Assistant	Health care	Minor equipment required
			Welder / Fabricator	Welder	Lab establishment required
			Refrigeration & Air Conditioning	Electrical	lab to be furnished with equipment
			Motorcycle Mechanic	Mechanic	equipment required to outfit lab
			Dress Making	Tailoring	Minor equipment required
			Embroidery	Hand & Machine Embroidery	Machines & other equipment required
			Beautician	Beautician	Minor equipment required
20	Vocational Training Institute, Baseera, Muzaffargarh	Muzaffargarh	Computer Application & Office Professional	Computer Skills	40% shortfall of equipment
			Dress Making	Tailoring	Machines & other equipment required
			Embroidery	Hand & Machine Embroidery	Machines & other equipment required

Sr No	Name and Address of Institute	District	Trades	Sectors	Support Required
21	Vocational Training Institute, Rang Pur, Muzaffargarh	Muzaffargarh	Computer Application & Office Professional	Computer Skills	40% shortfall of equipment
			Dress Making	Tailoring	Machines & other equipment required
22	Vocational Training Institute, Taleri, Muzaffargarh	Muzaffargarh	Dress Making	Tailoring	Machines and equipment required
23	Vocational Training Institute, Kot Addu	Muzaffargarh	Beautician	Beautician	No support required
			Computer Application & Office Professional	Computer Skills	Minor equipment required
			Motorcycle Mechanic	Mechanic	No support required
			Repair & Maintenance of Electrical Appliances	Electrical	equipment required for outfitting lab
24	Vocational Training Institute, Alipur	Muzaffargarh	Computer Application & Office Professional	Computer Skills	want to initiate trade for female; need equipment
			Repair & Maintenance of Electrical Appliances	Electrical	No support required
			Dress Making	Tailoring	To launch new trade, equipment support requested
			Beautician	Beautician	Minor equipment support required
25	Vocational Training Institute, Jatoi, Muzaffargarh	Muzaffargarh	Computer Application & Office Professional	Computer Skills	No support required
			Repair & Maintenance of Electrical Appliances	Electrical	
			Dress Making	Tailoring	
			Embroidery	Hand & Machine Embroidery	
			Beautician	Beautician	
			Refrigeration & Air Conditioning	Electrical	
26	Vocational Training Institute, Mehmoodkot, Muzaffargarh	Muzaffargarh	Computer Application & Office Professional	Computer Skills	Minor equipment required
			Repair & Maintenance of Electrical Appliances	Electrical	equipment required
			Dress Making	Tailoring	

Sr No	Name and Address of Institute	District	Trades	Sectors	Support Required
			Embroidery	Hand & Machine Embroidery	Minor equipment required
			Beautician	Beautician	
			Welder / Fabricator	Welder	Equipment support required
27	Vocational Training Institute, Sanawan	Muzaffargarh	Dress Making	Tailoring	Equipment required
			Beautician	Beautician	Equipment required
28	Vocational training Institute, Dunyapur	Lodhran	Clinical assistant	Health care	Minor equipment required
			Repair & Maintenance of Electrical Appliances	Electrical	Equipment required for RAC
			Computer Application & Office Professional	Computer Skills	Machines required
			Dress Making	Tailoring	Minor support required
29	Vocational Training Institute, UC 49, Dunyapur	Lodhran	Computer Application & Office Professional	Computer Skills	Machines required
			Dress Making	Tailoring	
30	Vocational Training Institute, MakhdoomAli, Lodhran	Lodhran	Computer Application & Office Professional	Computer Skills	Equipment required
			Refrigeration & Air Conditioning	Electrical	Equipment required
			Repair & Maintenance of Electrical Appliances	Electrical	Equipment required
			Dress Making	Tailoring	Equipment required
			Beautician	Beautician	Equipment required
31	Vocational Training Institute, Jallah Arain, Lodhran	Lodhran	Computer Application & Office Professional	Computer Skills	Equipment required
			Dress Making	Tailoring	
			Beautician	Beautician	
32	Vocational Training Institute, Kahror Pakka	Lodhran	Clinical assistant	Health care	Machines & equipment required for shortfall
			Computer Application & Office Professional	Computer Skills	
			Refrigeration & Air Conditioning	Electrical	
			Repair & Maintenance of Electrical Appliances	Electrical	
33	Vocational Training Institute, Ghousia Chowk, Kahror Pakka	Lodhran	Beautician	Beautician	Equipment required
			Computer Application & Office Professional	Computer Skills	
			Dress Making	Tailoring	
34		Muzaffargarh	Beautician	Beautician	Equipment required

Sr No	Name and Address of Institute	District	Trades	Sectors	Support Required
	Vocational Training Institute, Shah Jamal, Muzaffargarh		Computer Application & Office Professional	Computer Skills	
			Dress Making	Tailoring	
			Embroidery	Hand & Machine Embroidery	
			Motorcycle Mechanic	Mechanic	
			Repair & Maintenance of Electrical Appliances	Electrical	
35	Vocational Training Institute, Ahmad Mouhana, Muzaffargarh	Muzaffargarh	Dress Making	Tailoring	Equipment required
36	Vocational Training Institute, Qadirpur Raan, Multan	Multan	Computer Application & Office Professional	Computer Skills	Retooling for the trade requested
			Dress Making	Tailoring	No support required
37	Vocational Training Institute, MTEC, Multan	Multan	Beautician	Beautician	No support required
			Clinical assistant	Health care	
			Computer Application & Office Professional	Computer Skills	
			Dress Making	Tailoring	
			Food Cooking and Kitchen Organization	other	
			Industrial Electrician	Electrical	Equipment support required
			Mobile Phone Repairing	Electrical	No support required
			Motorcycle Mechanic	Mechanic	
			Plumber	Plumber	Equipment support required
			Repair & Maintenance of Electrical Appliances	Electrical	No support required
			Web & Graphics Designing	Computer Skills	
			Welder / Fabricator	Welder	
38	Vocational Training Institute, (F) Bahawalpur	Bahawalpur	Beautician	Beautician	No support required
			Clinical assistant	Health care	
			Computer Application & Office Professional	Computer Skills	
			Dress Making	Tailoring	
			Embroidery	Hand & Machine Embroidery	

Sr No	Name and Address of Institute	District	Trades	Sectors	Support Required
			Fashion Designing	Tailoring	
			Web & Graphics Designing	Computer Skills	
39	Vocational Training Institute, Bahawalpur	Bahawalpur	Auto CAD Operator	AutoCAD	No support required
			Clinical assistant	Health care	
			Computer Application & Office Professional	Computer Skills	
			Computer Hardware / Network Professional	Computer Skills	
			HVACR	Electrical	
			Mobile Phone Repairing	Electrical	
			Motorcycle Mechanic	Mechanic	
			Refrigeration & Air Conditioning	Electrical	
			Repair & Maintenance of Electrical Appliances	Electrical	
			Veterinary Assistant	Health care	
			Web & Graphics Designing	Computer Skills	
			Welder / Fabricator	Welder	

Private Training Institutes in PYWD-Focus Districts

Sr No	Name and Address of Institute	Certification status	District	Trades	Sectors	Remarks
1	UK Polytechnic Institute, Lodhran	PBTE	Lodhran	AutoCAD	AutoCad	No Support
				Beautician	Beautician	Lab overhaul required
				Computer Application	Computer Skills	No Support
				Civil Surveyor	Surveyor	A few needs replacement
				Diploma in IT	Computer Skills	No Support
				Dress Making	Tailoring	Lab overhaul required
				Electrician	Electrical	No Support
				HVACR	Electrical	Minor equipment replacements
2	UK Polytechnic Institute, Bahawalpur	PBTE	Bahawalpur	AutoCAD	AutoCad	No Support
				Beautician	Beautician	Lab overhaul required
				Computer Application	Computer Skills	No Support
				Civil Surveyor	Surveyor	A few needs replacement
				Diploma in IT	Computer Skills	No Support
				Dress Making	Tailoring	Lab overhaul required
				Electrician	Electrical	No Support
				HVACR	Electrical	Minor equipment replacements
3	United College of Technology	PBTE	Bahawalpur	DAE Civil	Education	No support required
				Electrician	Electrical	
				AutoCAD	AutoCad	
				Civil Surveyor	Surveyor	
				Computer Application	Computer Skills	
				Refrigeration and Air Conditioning	Electrical	
				Motor Winding	Electrical	
4	The Punjab College of Engineering & Technology	PBTE	Bahawalpur	DAE Civil	Education	No support required
				Matric Tech	Education	
				AutoCAD	AutoCad	

Sr No	Name and Address of Institute	Certification status	District	Trades	Sectors	Remarks
5	UK College of Technology, Bahawalpur	PBTE	Bahawalpur	Computer Application	Computer Skills	Equipment required for strengthening lab
				AutoCAD	AutoCad	
				Dress Making	Tailoring	Machine & equipment required
				Beautician	Beautician	Equipment required for strengthening lab
				Civil Surveyor	Surveyor	Minor equipment replacements
				Electrician	Electrical	No support required
				HVACR	Electrical	Equipment required for strengthening lab
6	UK Institute of Technology, Bahawalpur	PBTE/TTB	Bahawalpur	Computer Application	Computer Skills	Equipment required for strengthening lab
				AutoCAD	AutoCad	
				Dress Making	Tailoring	Machine & equipment required
				Beautician	Beautician	Equipment required for strengthening lab
				Civil Surveyor	Surveyor	Minor equipment replacements
				Electrician	Electrical	No support required
				HVACR	Electrical	Equipment required for strengthening lab
7	Hasilpur College of Technology, Hasilpur	PBTE	Bahawalpur	Dress Making	Tailoring	No Support Required
				Hand & Machine Embroidery	Hand & Machine Embroidery	
				Machine Embroidery	Hand & Machine Embroidery	
				Fashion Designing	Tailoring	
				Electrician	Electrical	
				Electrical Wiring	Electrical	
				Repair of Home Appliances	Electrical	
				Electronics Equipment Repair	Electrical	
				Quantity Surveyor	Surveyor	
				Plumber	Plumber	
				Civil Surveyor	Surveyor	

Sr No	Name and Address of Institute	Certification status	District	Trades	Sectors	Remarks
				AutoCAD	AutoCad	
				Computer Application	Computer Skills	
				Web Development	Computer Skills	
				Diploma in IT	Computer Skills	
				Mason	other	
8	Global College of Technology, Muzaffargarh	PBTE	Muzaffargarh	AutoCAD	AutoCad	No support required
				Quantity Surveyor	Surveyor	
				Electrician	Electrical	
				Welder	welder	
				Beautician	Beautician	
				Dress Making	Tailoring	
				Computer Application	Computer Skills	
				Mason	other	
				Secretarial Studies	other	
9	Multan Poly Technic Institute	PBTE	Multan	DAE Chemical	Education	No support required
				Civil Works	Surveyor	
				Electrical Wiring	Electrical	
				Electronics Equipment Repair	Electrical	
				Mechanical	Education	
10	Multan Vocational Training Center	PBTE	Multan	Refrigeration and Air Conditioning	Electrical	Support required for new trades
11	International Institute of Technology, Multan	PBTE	Multan	Computer Application	Computer Skills	No support required
				AutoCAD	AutoCAD	
				Plumber	Plumber	
				Civil Surveyor	Civil works	
				Quantity Surveyor	Surveyor	
				Construction Management	Civil works	

Sr No	Name and Address of Institute	Certification status	District	Trades	Sectors	Remarks
				Aluminum Fabricator	Civil works	
				Steel Fixer	Civil works	
				Dress Making	Tailoring	
				Cutting expert Fabric	Civil works	
				Safety Inspector	Civil works	
				Occupational, Safety, Health Environment	Civil works	
				Mason	Civil works	
				Electrical Wiring	Electrical	
				Fitter General	Mechanic	
				Machinist	Mechanic	
				Welder	welder	
12	Multan College of Commerce	PBTE	Multan	Computer Application	Computer Skills	No support required
				Computer Operator	Computer Skills	
				Safety Inspector	other	
				Office Management	Education	
				Spoken English	Education	
13	Sir Syed College of Technology	PBTE	Multan	D.Com	Education	No Support Required
				DAE Electrical	Education	
				DAE Civil	Education	
14	Asian College of Technology, Bahawalpur	PBTE	Bahawalpur	AutoCAD	AutoCAD	No support required
				Turner	Mechanic	
				Welder	welder	
				Plumber	Plumber	
				UPS Repair & Maintenance	Electrical	
15		PBTE	Muzaffargarh	DAE Civil	Education	Interested to launch AutoCAD and Mason
				DAE Electrical	Education	

Sr No	Name and Address of Institute	Certification status	District	Trades	Sectors	Remarks
	Multan College of Management and IT, Muzaffargarh			DBA	Education	
				Computer Application	Computer Skills	
				Civil Surveyor	Surveyor	
				Quantity Surveyor	Surveyor	
				Material Testing	Civil works	
				Electrical Wiring	Electrical	
				Home Appliances Repairing	Electrical	
				Auto Electrician	Mechanic	
16	Jinnah College of Technology, Muzaffargarh	PBTE	Muzaffargarh	Electrician	Electrical	No support required
				Quantity Surveyor	Surveyor	
				Civil Surveyor	Surveyor	
				AutoCAD	AutoCAD	
				Diploma in IT	Computer Skills	
				Welder	welder	
				Plumber	Plumber	
17	Jinnah College of Engineering and Technology, Alipur	PBTE	Muzaffargarh	Electrician	Electrical	Beautician & Dress Making trade required
				AutoCAD	AutoCAD	
				Civil Surveyor	Surveyor	
				Quantity Surveyor	Surveyor	
				Plumber	Plumber	
18	Al-Rehman College of Technology		Muzaffargarh	Civil Surveyor	Surveyor	No support required
				Quantity Surveyor	Surveyor	
				AutoCAD	AutoCAD	
				Plumber	Plumber	
				Material Technician	Civil works	
				Motor winding	Electrical	
				Computer Application	Computer Skills	

Sr No	Name and Address of Institute	Certification status	District	Trades	Sectors	Remarks
19	Shan College of Technology	PBTE	Muzaffargarh	DAE Civil	Education	No support required
				Quantity Surveyor	Surveyor	
20	Crescent College of Technology	PBTE	Muzaffargarh	DAE Electrical	Education	Computers required
				Computer Application	Computer Skills	Furniture required
21	Kasib Polytechnic Institute, Multan	PBTE	Multan	DAE Electrical	Education	Furniture Required
				DAE Civil	Education	15 Computers, 01 Multimedia, PLC Simulator,
				AutoCAD	AutoCAD	
				Surveyor	Surveyor	
				Diploma in IT	Computer Skills	
				AutoCAD	AutoCAD	
22	Millat College of Technology, Lodhran	PBTE	Lodhran	DAE Civil	Education	Minor shortfall of tools/equipment in domestic tailoring, Motor winding, AutoCAD, Civil Surveyor, Electrician
				DAE Electrical	Education	Equipment requested for Safety inspector and computer trades including AutoCAD
				AutoCAD	AutoCAD	
				Civil Surveyor	Surveyor	
				Electrician	Electrical	
				Office Automation	Computer Skills	
				E-Commerce	Education	
23	City College of Technology, Multan	PBTE	Multan	DAE Mechanical	Education	No support required
				DAE Electrical	Education	
				DAE Civil	Education	
24	Allama Iqbal College of Technology	PBTE	Multan	DAE Mechanical	Education	No support required
				DAE Electrical	Education	
				DAE Civil	Education	
				DAE Chemical	Education	
25	Unique College of Technology, Multan	PBTE	Multan	DAE Electrical	Education	Willing to initiate 03-06 months programs
				DAE Chemical	Education	

Sr No	Name and Address of Institute	Certification status	District	Trades	Sectors	Remarks
				Civil Surveyor	Surveyor	
26	Swedish Institute of Technology	PBTE	Multan	DAE Chemical	Education	Willing to launch 03-06 month courses
				DAE Civil	Education	
				DAE Electrical	Education	
				DAE Mechanical	Education	
27	Azeem College of Technology, Multan	PBTE	Multan	DAE Civil	Education	Beautician & Dress Making trade required
				DAE Electrical	Education	
28	The National College	SDC/PBTE/V.U	Multan	AutoCAD	AutoCAD	No support required
				Computer Application	Computer Skills	
				Electrician	Electrical	
				Motor winding	Electrical	
				Solar Energy Technician	Solar	
				Home Appliances Repairing	Electrical	
				Graphic Designing	Computer Skills	
				Quantity Surveyor	Surveyor	

Social Welfare (Sanatzar) Training Institutes in PYWD Focus Districts

Sr No	Name and Address of Institute	District	Legal Status	Trades	Sector	Remarks
1	District Industrial Home, Sanatzar, Bahawalpur	Bahawalpur	SW	Dress Making	Tailoring	Retooling for domestic tailoring/Computer Application & Beautician trades, teachers training, library support required
				Machine Embroidery	Hand & machine Embroidery	
				Hand Embroidery	Hand & machine Embroidery	
				Beautician	Beautician	
				Mukesh & Gota Work	Embellishments	
				Computer Application	Computer Skills	
2	District Industrial Home, Sanatzar, Lodhran	Lodhran	SW	Dress Making	Tailoring	Retooling for all trades, class room furniture, ToT required
				Hand Embroidery	Hand & machine Embroidery	
				Machine Embroidery	Hand & machine Embroidery	
				Beautician	Beautician	
				Computer Application	Computer Skills	
				Fine Arts	others	
				Gym	others	
3	District Industrial Home, Multan	Multan	SW	Advance Tailoring	Tailoring	Retooling for existing trades, classroom furniture, library books and teachers' training required
				General Tailoring	Tailoring	
				Dress Designing	Tailoring	
				Beautician	Beautician	
				Computer Application	Computer Skills	
				TillaSilma Work	Embellishments	
				Graphic Designing	Computer Skills	

Sr No	Name and Address of Institute	District	Legal Status	Trades	Sector	Remarks
				Cooking	others	
				Hand & Machine Embroidery	Hand & machine Embroidery	
				Fine Art.	others	
				Spoken English	Education	
4	District Industrial Home (Sanatzar) Social Welfare Muzaffargarh	Muzaffarhgarh	SW	Dress Designing	Tailoring	Complete overhauling required since presently offering one trade

ANNEX VI. KEY STAKEHOLDERS CONSULTED IN PRIORITY SECTORS

Sector:	Agriculture			

Sub-Sector:	Dairy	Fisheries	Livestock	Poultry

Mode of Validation:	Individual Meetings	Focus Group Discussions

PARTICIPANTS' PROFILE:

1. Dr. Shahid Iqbal, Assistant Professor, Department of Agronomy, Muhammad Nawaz Sharif University of Agriculture, Multan
2. Mr. Muhammad Yaqoob, Agriculture Officer, 5-Faiz, Pakistan German Institute of Cooperative Agriculture, Multan
3. Dr. Muhammad Shabaz, Department of Food Sci & Technology, Muhammad Nawaz Sharif University of Agriculture, Multan
4. Mr. Zia-ul-Hassan Shad, Project Manager, PAGICA, 5-Faiz, Multan
5. Dr. Tariq Abdullah, Senior Veterinary Officer, Breed Improvement, Livestock & Dairy Development
6. Dr. Usama Shareef, Visiting Lecturer, Muhammad Nawaz Sharif University of Agriculture, Multan
7. Mr. Fida Hussain, Owner of Fish Farm, Muzaffargarh
8. Mr. Nadeem Ahmed, Owner of Private Livestock Farm
9. Mr. Muhammad Afzal Watto, Owner of Watto Farm, 19 MR

Sector:	Manufacturing			
Sub-Sector:	Cotton Ginning	Spinning	Weaving	
	Leathery Tannery	Sheep Casing	Textile	Ceramics
Mode of Validation:	Individual Meetings			

PARTICIPANTS' PROFILE:

1. Mr. Waheed Ashraf, President, Mian Cotton Industry.
2. Mr. Ijaz Nazam, President, Nazam Group of Industry, Bahawalpur
3. Mr. Muhammad Ishfaq Bukhari, Manager, Ahmed Hassan Textile Mills, Muzaffargarh
4. Mr. Nadeem Irshad Khan, Technical Director, Mahmood Textile Mills Units, Muzaffargarh
5. Mr. Altaf Rashid, General Manager, Leather Industry, Multan
6. Mr. Saleem Hussain, Chief Auditor, Leather Industry, Multan
7. Mr. Ghulam Muhammad Subhani, General Manager, 105 Industrial Estate Multan
8. Ms. Shahida Soomro, UMER Enterprises, Chief Executive Officer

Sector:	Services			

Sub-Sector:	Light Engineering	Construction	Automobile	
	Hospitality	Women Related	Logistics	Meat Processing

Mode of Validation:	Individual Meetings	Focus Group Discussions

PARTICIPANTS' PROFILE:

1. Mr. Abdul Jabbar, Plant Manager, Rehman Industry, Bahawalpur
2. Mr. Zahoor Hussain Dharala, Dharala Auto Industry
3. Mr. Muhammad Humair, Project Engineer, DHA, Bahawalpur
4. Mr. Dilshad Talib, Design Center, Bahawalpur
5. Mr. Muhammad Jameel, Al Makkah Automobiles
6. Mr. Muhammad Shahid, Al-Hassan Traders, Distributors, Multan
7. Ms. Yasmin Parveen, Sanatzar Bahawalpur
8. Ch. Muhammad Nawaz, President, Al Kousar, Bahwalpur
9. Mr. Faisal Khakwani, Assistant Manager, Ramada
10. Mirza Ahsan Khan, General Manager, BBQ Tonight, Multan
11. Chaudhary Akhtar, Owner of Veneto, Multan
12. Mr. Muhammad Arif Javed, Regional Manager, Landon Courtyard, Multan
13. Mr. Babar Sheikh, Director, COTHM
14. Mr. Waqas Ahmed, Director, COTHM
15. Mr. Abdul Ghafoor, F&B Manager, BBQ Tonight, Multan
16. Ch. Shahid Mahmood, Gloria Jeans, General Manager, Multan
17. Mirza Atif Baig, Senior Manager, Hotel LA Flora, Multan.

PRIMARY RESEARCH – LIST OF PARTICIPANTS DURING FOCUS GROUP DISCUSSIONS (FGDS)

SECTORS		
SERVICES	**MANUFACTURING**	**AGRICULTURE**
SOJHLA (Software House)	CoLab (Pvt) Ltd. (Plastic Packaging)	Chaudhry Cattle Farm (Cattle Farming)
Hotel Laflora (Hospitality)	Hussain Mills (Textile)	Hashmi Farming (Cattle Farming)
Nihao Chinese Restaurant (Food & Beverages)	Sarafa Bazar (Gold Market Association)	MI Corporation (Farming)
California Pizza (Food & Beverages)	PakArab Fertilizers (Fertilizer Mill)	Future Horizon (Private-sector Training Institute offering agriculture sector training)
Education Services (Education)	Qadir Buksh & Sons (Sheep Casing)	Master Protein Farm (Poultry Farming)
Al Mehdi Travel (Travel & Tour)	Premier Packages (Packaging)	Asst. Professor (Agronomy) (Agriculture Research)
Firdous Travel (Travel & Tour)	Naqshband Foods (Food Manufacturer)	Professor (Agronomy) (Agriculture Research)
Shahwar Schools (Education)	Colony Textile Mills (Textile)	Project Manager, TEVTA (PGICA; Pak-German Institute Of Co-operative Agriculture)
MHTT (Travel & Tours)	Umer Enterprises (Garments)	Agriculture Officer, TEVTA (PGICA; Pak-German Institute Of Co-operative Agriculture)
Gems Grammar School (Education)	POHRA (Hand Embroidery)	Mango Growers Association (Agriculture)
Donar Kabab (Food & Beverages)	Mahnosh collection (Garments)	Self-employed Farmer (Agriculture)
Burger Station (Food & Beverages)	Aziz Fatima Garments (Textile)	
College of Tourism & Hotel Management (COTHM) (Hospitality)	MarryKhas (Garments)	
Wattan Travellers (Travel & Tours)		

BIBLIOGRAPHY

1. Workforce Development Analysis (South Punjab), July 2013; published by USAID/Pakistan FIRMS Project

2. Skills Trend Analysis (National and International), February 2017; published by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
    https://www.skillingpakistan.org/files/1/Skills%20Trend%20Analysis.pdf

3. Producing Skilled Workforce for Potential Economic Sectors in Punjab, January 2017; published by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
    http://tvetreform.org.pk/wp-content/uploads/downloads/pse/Study%20of%20Potential%20Economic%20Sectors-Punjab.pdf

4. Comparative Analysis of TVET Sector in Pakistan, February 2017; published by GIZ/ National Vocational & Technical Training Commission (NAVTTC) Pakistan
    https://www.skillingpakistan.org/files/1/Comparative%20Analysis%20of%20TVET%20Sector%20in%20Pakistan.pdf

5. Tracer studies of Skills for Jobs Scheme in South Punjab, 2014-15; published by Punjab Skills Development Fund (PSDF), Pakistan
    https://psdf.org.pk/downloads/#communication

6. Skill Mapping Reports for districts of Multan, Bahawalpur, Lodhran and Muzaffargarh, 2011; developed by Punjab-Technical Education and Vocational Training Authority (P-TEVTA)
    http://tevta-slmis.gop.pk/gap-analysis/

7. Demographics of Punjab – Training Needs Assessment (TNA) at Tehsil level, 2011; developed by Punjab Vocational Training Council (PVTC)
    http://www.pvtc.gop.pk/Publications/Demographics%20Presentation%20TehsilWise.pdf