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Thanks are due to the managers, workers and trade union members who gave their time and attention to the study.

Dedication

This study is dedicated to all construction workers of Pakistan who continue to struggle for their rights.

Acronyms

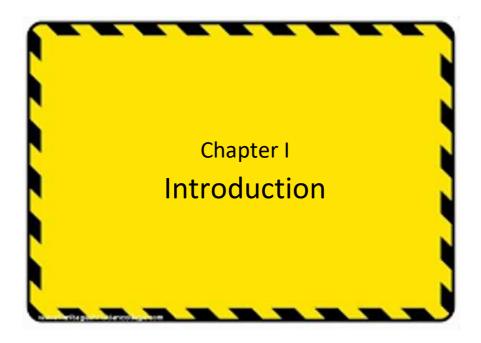
ACE EU	Associated Consulting Engineers' Employees Union
ALU	Awami Labor Union (Trade Union at MD & TD Sites)
BWI	Building and Woodworkers International
CGGC	China Gezhouba Group Company
FGD	Focus Group Discussion
GoP	Government of Pakistan
HSE	Health, Safety and Environment
IDI	In Depth Interview
IFI	International Financial Institution
ILO	International Labor Organization
КР	Khyber Pakhtunkhwa (A province of Pakistan)
LEF	Labour Education Foundation
MD	Mohmand Dam
OSH	Occupational Safety and Health
PFBWW	Pakistan Federation of Building and Wood Workers
PPE	Personal Protective Equipment
SOPs	Standard Operating Procedures
SPSS	Statistical Package for the Social Sciences
TD	Tarbela Dam
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I. Introduction

This Report presents the findings of research conducted on the status of Occupational Safety and Health (OSH) legislation and regulations in Pakistan's construction sector, with particular attention to COVID-19 protection and mitigation measures in the workplace. The study focused on two mega construction sites - the Mohmand Dam and the Tarbela Dam - to assess whether and to what degree the OSH measures in place are in compliance with the required standards and protocols of Pakistan's Occupational Safety and Health legislation.

As part of its "Promoting Decent Work" project, the research was commissioned by the Labour Education Foundation in partnership with BWI and its national affiliates the Pakistan Federation for Building Wood Workers and Associated Consulting Engineers Employees' Union. The Project's overall objectives are to document health and safety needs to enhance the working conditions of construction workers in Pakistan.

Background

The construction industry is a significant contributor to the economy of Pakistan. The Board of Investment indicates that the construction sector accounts for up to 380 billion¹ PKR in GDP annually, which is 2.53% of GDP according to the Pakistan Economic Survey. The sector employs 7.61% of the employed Pakistani labour force. ²

Worldwide, total economic losses due to occupational injuries and illnesses are enormous. According to the ILO (1998) the overall economic losses resulting from work-related diseases and injuries were approximately 4-5%3 of the world's Gross National Product.

Workers in Pakistan's construction sector typically face risky working conditions, minimal social benefits and a lack of rights related to their work. Work-site accidents are common despite the existence of laws meant to prevent them. Breaches of mandated safety measures result in workplace accidents, occupational disease and industrial disasters. Many, if not most, of these incidents go unreported. Some do reach public attention:

- The tragic factory collapse in Lahore that killed more than 45 workers is proof that occupational safety and health is not a top priority in Pakistan (Human Rights Watch, 2015).
- A bus carrying dozens of construction workers fell into a ravine Wednesday in northwest Pakistan after a gas leak in the vehicle caused an explosion, killing at least 13 people including nine Chinese, Pakistani, July 2021 (AP News)
- Four killed in construction accident at Neelum-Jhelum project site (Tribune, 2014)
- One person was killed and six injured after a building collapsed in Lahore's Chauburji Friday afternoon. Others are feared stuck under the debris (Dawn, 10 September, 2020).
- Six workers killed in a horrific mine accident in Kalat district, Baluchistan (DAWN, April 2018)
- A fire that consumed a factory in Baldia Town, Karachi resulted in the death of over 260 workers. It also generated international awareness about the distressing working conditions in Pakistan. After the incidents, short- and medium-term plans were drafted which are yet to be implemented. Meanwhile, illegal and dangerous practices continue to take place with brash indifference in factories. (September 2012)
- Billboard advertising companies are one of the many businesses that ignore worker safety. Labourers can be seen without any safety gear, such as a harness, ropes and helmets, climbing over fifty feet high. Ironically, the ropes they do use are only thick enough to hang instruments. The authority turns a blind eye towards these blatant safety compromises.

In Pakistan OSH has never been accorded prime importance by employers or by monitoring and enforcement agencies. Construction work is a major component of all infrastructure and industrial development, such as buildings, airports, railroads, hospitals, schools, housing, irrigation systems, dams, highways, motorways, bridges, road transport systems and modern housing societies. Unfortunately, no serious measures are taken

National Economic Survey 2018-19.

 $^{^2 \} https://invest.gov.pk/sites/default/files/boi/Housing\%20 and\%20 Construction.pdf$

³National Economic Survey 2018-19.

by employers, contractors or enforcement agencies to safeguard workers or to implement legislated OSH rules and regulation at work sites.

Workers toil without any protective equipment such as gloves, helmets, work boots, masks or protective eyewear. Demolition sites are even more dangerous, as workers have only hand tools.

A Joint ILO/WHO Committee noted (1995) that the main objectives of OSH are 1) to maintain and promote workers' health and working capacity and (2) to develop work organizations and working cultures in a direction which supports health and safety at work. ⁴ Effectively implemented Occupational Safety and Health (OSH) is a multi-disciplinary area that is concerned with the safety, health and welfare of people at the workplace. OSH at work is a vital component of "decent work". The ILO (2018) notes that "most of the enterprises in the organized sectors are not aware of OSH risks and hazards, and often they do not see the importance and urgency of addressing those risks and hazards". A study of construction sites in Pakistan's informal sector⁵ concluded that "the construction industry employs a huge portion of the informal workforce, and lack of OHS happens at tremendous human cost ... both employers and workers lack knowledge of OHS laws/standards and no practices of this nature are enacted at these construction sites. Alarmingly, work-related accidents, whenever they happen, are not given due attention and there is no formal injury-report system".

OSH incidents result in at least four kinds of <u>costs</u>: to workers (including income loss due to injury or illness, uncompensated medical treatments, and reduced economic prospects after an occupational accident or disease; to employers (directly in compensation of workers who have suffered from an injury or disease and indirectly in decreased production or productivity; to Society (i.e., through costs to public and private health insurances).



According to field research by GIZ Return on Prevention, conducted in 21 countries including Pakistan. The rate on return on perfection was 2.0 while the study says, the rate in Pakistan is 2.5.

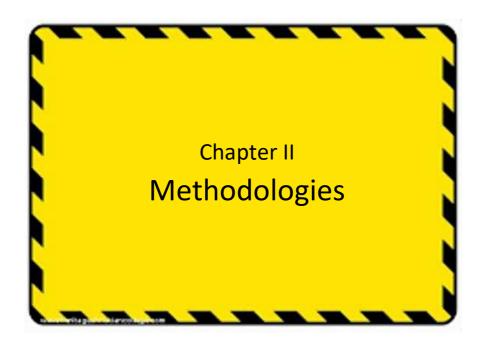
(Calculating the Return on Prevention for Companies, Costs and Benefits of Investments in Occupational Safety and Health in Pakistan's Textile and Garment Sector, GIZ)

2. Objectives of the study

The study was designed to assess the occupational safety and health (OSH) laws and regulations in Pakistan's construction industry. The specific objectives were (1) to analyze current laws, policies and regulations in construction regulations, particularly those pertaining to COVID-19, and to identify OSH-related gaps in those laws. (2) to provide recommendations that will be the basis for the development of protocols to improve worksite health, safety and hygiene practices generally and especially in reference to the COVID-19 pandemic. The study also assesses the enforcement of OSH measures by the concerned authorities: i.e., the Provincial Department of Labor and Human Resource (L&HRD), Khyber Pakhtunkhwa.

⁴International Labour Standards on Occupational Safety and Health. https://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/occupational-safety-and-health/lang--en/index.html

⁵Occupational health and safety issues in the informal economic segment of Pakistan: a survey of construction sites https://doi.org/10.1080/10803548.2017.1366145





II. Methodologies

1. Desk Review of OSH Legislation

A detailed review was conducted of OSH-related legislation, national and provincial labour regulations, and the mechanisms for OSH implementation, compliance, and enforcement in Pakistan. The review includes the GoP's special policies for construction workers, the execution of those policies during the COVID-19 pandemic and workers' and employers' responses to those policies. It also covers International Conventions related to OSH procedures at construction sites.

2. Fieldwork

Fieldwork at the two construction sites was conducted between October and November 2021. Details of the fieldwork and its findings and limitations are provided in Annexes 03 through 05. Security limitations imposed by the employers and the Pakistan Army made it impossible to meet the employers. The research study is based on the perceptions and information provided by workers, union leaders, safety managers and labour sector specialists. Information was also collected through literature and online sources.





III. Research Findings

1. Gaps in Relevant Laws

Multiple gaps were identified in the legislative framework related to OSH in the construction Industry. See **Table 1: OSH Legislation Matrix** for details. In some cases, there is no mention of OSH; in others, OSH is referred to without elaboration. The exception is the National Occupational Health and Safety Act (2018), which calls for the establishment of three national-level bodies which each have OSH-specific responsibilities.

In no case is there an Implementation Plan to ensure that any OSH requirements are met. Although some of the legislation requires that accidents be reported, there is presently no OSH monitoring process that identifies responsibilities for tracking and analyzing accidents and infractions. There is also no framework for collecting and analyzing statistics on workplace accidents.

Table 1: Legislation Matrix for the Construction Sector

Constitutional Article, Law, Policy or Regulation	Provisions/Clauses Relevant to Construction Sector OSH	Comments	Recommendations
Constitution of the Islamic Republic of Pakistan. 1973 Enjoins the state to eliminate processes and activities that are likely to endanger people in the working environment.	Article 11 prohibits all forms of slavery, forced labour and child labour. Article 17 provides for the fundamental right to exercise the freedom of association and the right to form unions. Article 37(e) makes provision for securing just and humane conditions of work.	Nil	Awareness should be provided to the workers about their constitutional rights at work.
Guidelines for Health & Safety of Building & Construction Workers during COVID-19 Outbreak. Ministry of National Health Services, Gov't of Pakistan. 11 April 2020, Version 01. ⁶	Applies to all construction site managers, workers and delivery drivers. Provides clear requirements and responsibilities for managers, workers and delivery drivers concerning protective measures, social distancing and personal hygiene, at the construction site and travelling between home, residential facilities and the worksites. Requires construction projects to make the necessary arrangements for uninterrupted building services including, but not restricted to: electricity, fuel, water supply, water disposal and sanitation, communication links, washrooms with hand hygiene and shower facility and with proper and adequate supply of soaps and disinfectants. Requires managers to restrict shifts to 08 hours per day.	No procurement plans and guidelines for PPEs or sanitizers quality and procurement timeliness of Covid-19. Nothing mention about the safe storage and safe disposal of used PPEs (e.g. masks and gloves). No mention of rapid testing kits being made available to anyone who may be ill. No mention of preventive measures, including vaccines. No measures for ensuring a safe supply of vaccines on construction sites. No mention of using only Government registered vaccine clinics or of instructions on length of time between vaccines. No mention of long-term Covid-19 or of how infected workers can safely return to work. Addresses, inter alia, requirements for: personal hygiene, social	The Guidelines should be formalized as a specific Covid-19 Policy for Construction and integrated into the National Occupational Health and Safety Act (2018). COVID-19 should be considered as an occupational disease and should be discussed in detail with employers' responsibilities in the development of Rule of Law. Refers to "internationally recognized safety precautions for construction workers and other staff" but provides no references to these.

⁶ http://covid.gov.pk/

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Constitutional Article, Law, Policy or Regulation	Provisions/Clauses Relevant to Construction Sector OSH	Comments	Recommendations
		distancing, entry to sites (numbers and procedures); provision and use of Covid PPEs; workers' disclosure to management about their own and others' symptoms or illness; regulations for continuing salaries for workers who get Covid-19, and managements' obligations to maintain working, eating and residential requirements for Covid-19 prevention. Includes the requirement for managers and workers to disclose and record their contact details for tracking purposes.	
National Labour Policy (2010) According to the Schedule of the National Occupational Health and Safety Act (2018)? "The Labor Policy (2010) addresses the importance of OHS legislation in Pakistan in the following clauses: 1. Labour Laws relating to occupational safety and health will be consolidated and rationalized to avoid overlapping and inconsistencies. See Clause 7 2. Government shall enact suitable legislation to ensure the health and safety of construction workers. See clause 25 3. A Tripartite Council on Health and Safety be setup to identify health and safety hazards for workers of all economic sectors and to make recommendations for safety measures on a continuous basis. See clause 31.	Includes formal and informal sector workers. Includes provisions for OSH in construction sector with powers of inspection at all level of construction sites.	Nil	Requires updating as well as specific attention to OSH on construction sites. Requires attention to Covid-19 and other widespread diseases.
obliged for the ratification, implementation and enforcement of all relevant Conventions and Recommendations of the International Labor			
Organization (ILO). OHS is an integral part of ILO's Decent Work Initiative.			

 $^{^{^{7}}}$ Developed by the Pakistan Chapter of the American Society of Safety Engineers

Constitutional Article, Law, Policy or Regulation	Provisions/Clauses Relevant to Construction Sector OSH	Comments	Recommendations
Khyber Pakhtunkhwa Labour Policy 2018. "Commits to promotion of "decent work" for all workers in line with International Labour Standards (ILS) and Constitutional guarantees through setting following priorities: Improvement in health and safety at the workplace through promulgation of new OSH law, capacity building of the industries through provision of technical know-how, enhancing institutional capacity of Labour Department and through effective labour administration and governance; Improvement in enforcement of labour laws through framing subsidiary rules of labour laws, capacity development of inspection staff and research and development; Reinvigoration of inspection through facilitating inspection staff, resource allocation, provision of transport, digitization of inspection, follow-up, improvement in reporting and monitoring of inspection and research on possibilities of joint inspection through ADP Schemes and support from ILO and International Donors; Promoting genuine trade unionism, tri-partism, social dialogue and holding of Provincial Tripartite Labour Conference annually.	Does not mention the construction industry. Outlines a labour inspection system.	Nil	Should be updated to include the construction industry.
National Occupational Health and Safety Act (2018) ⁸ "The main objective of this Act is to provide for a balanced and nationally consistent framework to secure the health and safety of workers and workplaces". To authorize enforcement of the rules and regulations of the Act. Article 1(3) states that "It shall come into force at once".	 The Act makes provision for the safety, health and welfare of workers and all persons lawfully present at workplaces. The Act is relevant to the construction industry: Section 3 defines workplace hazards relevant to construction sites. The Act provides protection from: accidents, uncontrolled gases, spillages and leakages, explosion or fire, pressurized substances, electric shocks, falls from height, structural collapses, failure of Excavation, inrush of water, mud or gases in working area, demolition/deconstruction, poor ventilation lifting machines and vehicles, mines and tunnels, 	 The OSH law is available at the provincial level but the rules and implementation strategies are still in process. The Act requires an Annual Report to be published. No/weak data collection on OSH and analysis. Provides a potential blueprint for National and Provincial OSH procedures. 	Establish a Pakistan National OHS Council as required by Section 4 of the Act. Membership of the Council and terms of office are defined in the Act. Establish a Pakistan Safety Council as required by the Act. Establish a National OHS Directorate as required by Section 7 of the Act. Needs to establish national and provincial databases of accidents,

 $^{^{\}rm 8}$ Developed by the Pakistan Chapter of the American Society of Safety Engineers

Constitutional Article, Law, Policy or Regulation	Provisions/Clauses Relevant to Construction Sector OSH	Comments	Recommendations
	Illness, Injuries (head, eyes) and occupational diseases and burns. Incorporates OSH provisions from the 2010 Labour Policy, ILO Convention C-155, UN SDGs with OSH targets, eight MDGs and Pakistan Vision 2025 (Sustainability) Clause 28 indicates that "the OHS part of the following Acts may be deleted to avoid duplication that might create misunderstanding: The Mines Act 1923, the Factories Act 1934, the Boilers Act 1923, the Explosives Act 1884, the Petroleum Act 1934, the Dock Laborers Act 1934, the Workmen Compensation Act 1923, the Boilers and Pressure Vessels Ordinance 2002, the Employers' Liability Act, 1938, National Highways Safety Ordinance, 2000 and any other Act brought within the ambit of this Act.		injuries and outcomes in the construction industry.
Punjab OHS Act (2019)	Not explicitly about the construction industry but includes situations that pertain to construction. Section 13 requires that accidents, dangerous occurrences and occupational illnesses be recorded and reported to the required authorities immediately.	Nil	Should be updated to specifically include the construction sector. Development process of rules for OSH Law should be expedited.
Factories Act (1934)	Not explicitly related to construction sites but addresses dangers from machinery, pollution, dangerous gases.	No OSH provisions. No inspection and monitoring plan for construction sector Superseded by OHS provisions of the National Occupational Health and Safety Act (2018) ⁹ if and when the Act is adopted into law.	The act should be either kept separate from OSH (especially for construction sector) or revised to meet current construction sector requirements. Construction sector specific elements should be added in the Inspection process.
ILO Conventions			
ILO Labour Inspection Convention No. 81 (1947) Individual Case (CAS) - Discussion: 2014, Publication: 103rd ILC session (2014) Safety and Health in Construction Sector No. 167.	Most relevant convention to construction sector.	Ratified by Pakistan in 1953.	Requirements for ratification (C167) should be met and the Convention brought into force. Other conventions should be examined and, where deemed useful and relevant, adapted and applied to

 $^{^{9}}$ Developed by: Pakistan Chapter of the American Society of Safety Engineers

Constitutional Article, Law, Policy or Regulation	Provisions/Clauses Relevant to Construction Sector OSH	Comments	Recommendations
			construction sites, including mega-dam sites. • A course of Labour Inspection training should be generated, so that Department of Labour Inspectors and others with related responsibilities are fully aware of their professional obligations, especially for construction sector. • The Convention's requirements should be cross-referenced with the National Occupational Health and Safety Act (2018).

"The main features of this joint action plan were: to develop an OSH policy to clearly define parameters of safe and healthy workplaces; to amend OSH legislation that covers all workplaces and meets modern day requirements and technologies, and will be developed in line with the international labour standards; to establish a tripartite OSH Council in Sindh; to develop information and training material for stakeholders on OSH; to develop a comprehensive centralized electronic database of factories, workplaces and workers in the private sector; to establish a rapid response mechanism to promote a sense of safety among citizens in general and among workers in particular; ... to upgrade faculty and equipment at the National Institute of Labour Administration and Training to become more effective in developing the capacities of all stakeholders including government, employers, workers and civil society; to develop an OSH profile in Pakistan with a focus on the Province of Sindh to ascertain the current situation on legislation, systems in place and inspection and monitoring mechanisms in the country; to adopt, and periodically review, a labour inspection policy, which highlights the priorities of the Government to strengthen labour inspection in the province; to organize, in collaboration with the other concerned institutions and organizations, thematic training courses for all labour inspection which will help them to properly understand their role in effective labour administration and will enable them to carry out labour inspection in an effective and efficient manner; and to develop and adopt a recruitment system in the Labour Department of Sindh that ensures staff attraction, staff retention and career growth of OSH staff. This model framework of OSH was being replicated by the other provinces to ensure the implementation of international standards in OSH.

Includes an obligation for the central national inspection authority to publish an Annual Report including information on the labour inspection staff and activities, as well as on occupational accidents and diseases known to the labour inspection authority.

ILO Occupational Health Services Convention C-161 (1985).	 Addresses the rights of all employees, including those in the public sector. Contains advice for occupational health and makes workers and their representatives responsible for the establishment and maintenance of a safe and healthy working environment. 	Not ratified by Pakistan.	Requirements for ratification should be met and the Convention brought into force.
Convention on Safety and Health in Construction (No. 167) 1988 and its accompanying Recommendation (No. 175) Enter into force January 1991		Not ratified by Pakistan	Requirements for ratification should be met and the Convention brought into force.
ILO Code of Practice on Safety and Health in Construction (1992) The objective of this code is to provide practical guidance on a legal,		Not adopted by Pakistan.	The Code of Practice should be adopted and implemented.

Constitutional Article, Law, Policy or Regulation	Provisions/Clauses Relevant to Construction Sector OSH	Comments	Recommendations
administrative, technical and educational framework for safety and health in the construction sector.			
Hazardous Substance Rules 2003	Categorized as OSH The Rules make provisions for the granting of licenses for the collection, treatment, storage, importation, transportation, etc. of hazardous substances.	Not ratified by Pakistan.	The Rules should be adopted insofar as they are relevant to the construction industry, including at mega construction sites. The Rules should be cross-referenced with all other relevant legislation and Conventions, so that there are no contradictions.

3. Challenges Concerning Legislation

There was no legislation before 2018 to investigate or inspect OSH requirements at the workplace except for the Factories Act of 1934. The OSH sections of the Factory Act have been superseded by the content of the National Occupational Health and Safety Act (2018)¹⁰ The Constitution of Pakistan provides support and the Government has ratified ILO Conventions on Unionization and Organization, but the Government has tended to lag behind in legislative action.

The labor department has a mandate to investigate the safety committee, but doesn't have power to conduct these inspections at these big sites. A grade 20 Labor Inspector is not allowed inside without the permission of WAPDA or Chinese Employers.



Labor Inspector, Khyber Pakhtunkhwa

Occupational Safety as a Human Right According to Article 23 of the Universal Declaration of Human Rights, the right to safe and healthy working conditions is part of the broader right of everyone to the enjoyment of just and favorable conditions of work. Article 7 of the UN International Covenant on Economic, Social and Cultural Rights (1966) defines "safe and healthy working conditions" as a fundamental human right.

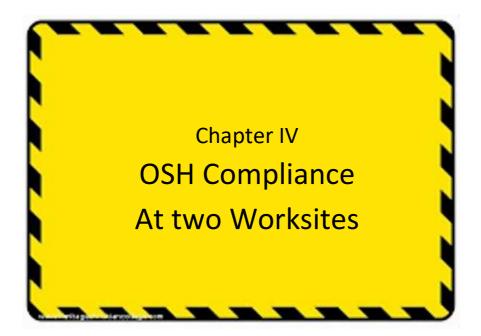
South African Government's Best Practice



National governments have put forward important initiatives to increase safety and health compliance. For instance, in 2014 the South African Department of Labour passed a new regulation that provides a legislative platform to address safety and health issues during all phases of a project, particularly during initiation and detailed design phases. The new regulation redistributes responsibility for construction OSH away from the contractor, who was previously solely responsible, to include all participants in the construction process, from the client through to the final end user. Clients have a pivotal role in setting and achieving high standards, as they have overall control of contracts, how projects are undertaken, and selecting designers and contractors. The engagement of clients with companies to achieve high OSH standards has been discussed and proposed. The new

 $^{^{}m 10}$ Developed by the Pakistan Chapter of the American Society of Safety Engineers

regulation also establishes the registration of construction OSH professionals in three categories: construction safety and health agent, construction safety and health manager, and construction safety and health officer 11 .





IV. OSH Compliance at Two Worksites

1. Tarbela Dam Site: TD(4)

The research was conducted at two dam construction sites identified by BWI: both have active and functioning trade unions. However, construction at the Tarbela Dam site has been ongoing for three to four decades while the Mohmand Dam construction only began in 2019.

The Awami Labor Union has great acceptability and influence in the Tarbela Dam(4) project and is in the initial phase at the Mohmand Dam site. The ACE-EU is present at Tarbela Dam (TD4) as an inspection consultant and safety supervisor.

a. OSH Commitments by Contractors

The contractors at both sites have a joint Safety Policy on "eliminating all hidden dangers and risks to ensure the health and safety of the workers during implementation of the project". Contractors are committed to following the policy of "safety and prevention first" (as stated in the contract) as well as existing work safety laws and regulations of Pakistan to prevent and eliminate all potential safety hazards, prevent all types of accidents, and to ensure the occupational health and safety of the project construction and management personnel. Following are the aims, objectives and those OSH commitments.

Commitments	Aims and Objectives
Have an accident / incident free-culture.	Providing a safe and healthy workplace.
 Ensuring the provision of a safe and healthy 	• Integrating safe practices into all the processes.
workplace to employees and all stakeholders.	Ensure compliance with policies as well as the
Provide adequate resources to implement and	project contractual requirements.
maintain the Health and Safety Management	Providing necessary resources to achieve
 System, including the necessary human, 	occupational safety and health objectives.
material, and financial resources.	Integrating occupational health and safety goals
	with an overall construction strategy.

b. Workplace OHS

Almost all workers at TD(4) are more experienced in their trades than those at MD. Years of experience at TD(4) range from 1-5 years (28 percent), 6-10 years (28 percent) 11-15 years (19 percent); and 13 percent have 16-30 years' experience. 100 percent of workers at TD(4) indicated awareness of the hazards associated with their profession, trade or occupation. This information and awareness is mostly due to their own efforts (according to 72 percent of respondents) with minimal contribution from employers. The employers and union leaders contributed to workers' information about safe working habits but neither the Provincial Government nor Inspection agencies played any role.

TB(4) has a comprehensive health system and facilities on site including a hospital, paramedical staff, 5-6 ambulances, required medicines and a referral system for serious health issues. New first aid kits have been procured and provided at 06 strategic locations. A monthly first aid training calendar is prepared to conduct these sessions in different on-site locations.

The TD(4) site has a comprehensive safety system including a Safety Committee. It has 05 members: a General Foreman, a Consultant, two WAPDA representatives and the Employers' Safety Manager (Chinese). New first aid kits have been procured and provided at 06 strategic locations. A monthly first aid training calendar is prepared and followed. Fire drills are conducted regularly by the safety department. Fire drills are held regularly.

All new workers at both sites were given training and orientation on awareness, warnings, and compliance with COVID-19 regulations and the use of COVID-19 SOPs. Other planned training courses were cancelled. Sixty-three percent of respondents said they had attended a safety training course.

The majority of TD(4) workers (54 percent) have attended an OSH related training in the two years, twenty eight percent of workers have not attended any training in the last five years. Only twenty percent of workers at the TD site have attended a work or trade-related training in the last 06 months (i.e., during Covid-19).

The Safety Manager at TD(4) conducts "toolbox sessions", trade specific training and allows the union leaders to orient the workers about their personal and professional safety. All TD(4) respondents said that daily toolbox meetings are held.

The TD(4) workers are well aware of their personal and workplace rights, hazards and incident reporting system, which is mainly due to Trade Unions' efforts. Trade Unions have either convinced the employer to comply with OSH requirements and conduct relevant training or they have conducted training sessions with their own funds and human resources.

The field survey suggests that workers at TD(4) have had fewer on-site accidents than at the Mohmand Dam site. 28% of TD workers have had an accident during their working life. The majority of accidents mentioned were slips and falls.

Workers say they are aware of OSH regulations as a result of Trade Union information sessions. Almost all the workers are aware of their own responsibility for safe work habits. The employers and union leaders also contributed to workers' information about safe working practices but the Provincial Government's OSH enforcement agencies played no role in this. Although workers do understand their safe work responsibilities at the workplace they do not understand the support and protection that would be provided by the OSH enforcement agencies and provincial government.

Signs for Chemical, Glass work, Radioactive material, Dust and Fumes, Office and Hospital directions are in place and visible for the workers.

c. Trade Union involvement

Overall, the TD(4) site workers - who have been organized by the PFGW-ALU Trade Union for many years - are in a much better position than those at the Mohmand Dam site, with respect to OSH. The study found that the PFGW-ALU has left an excellent footprint at TD(4). Learning how this was achieved can be put to use at the TD(5) extension and as the MD site moves into the construction phase. The TD(4) site has a comprehensive health system and facilities on site including a hospital, paramedical staff, 5-6 ambulances, required medicines and referral system for serious health issues.

Trade Union members at TD(4) are protected in terms of wages, leave arrangements and paid sick days, and workers' health and safety committees seem to be functioning effectively. However, the majority of workers are unaware of the legal protection for which the Government is responsible, for their safety and health. Eighty-four percent of interviewed TD(4) workers do not know about Pakistan's safety laws.

The Union at the TD(4) site regularly conducts awareness sessions on workers' issues and provides information about workplace safety. Training sessions on workers' occupational health, and social and personal issues are arranged quarterly. The Union also ensures that workers have safety shoes where required. Health facilities are available for injuries and diseases. Workers are reimbursed for sickness-related expenses. The Union at TD(4) ensures that uniforms and safety shoes are worn at the workplace. The Trade Union has prepared flyers, leaflets and training material from their own sources to orient the workers about workplace safety and viral/communicable diseases and infections.

The employers are not in favor of Unions at the sites. If a worker is found in any unionization activity, they are either given a tough time or fired straight away. During the FGD session with union leaders and workers for the current study, an employer sent their representative to learn about the gathering and visited the FGD venue to enquire about the purpose and content of this activity. (Consultants' own observations). During the FGDs the workers shared their experiences where they were exploited, humiliated and discriminated against during work but there was no one to listen to or support them in such situations. Some of them were fired and some are still working.

d. OSH Monitoring

Contractual agreements and commitments to OSH have been developed and signed but the lack of monitoring makes it impossible to verify whether these are being met. Monitoring requirements contained in OSH legislation and agreed to in the contractors' project agreements are not being met.

2. Mohmand Dam Site

Under construction since 2019, the Dam is situated in the economically neglected area previously known as FATA. The level of workers' formal education is almost zero: the only education opportunity is either *Madrassas* (religious institutions) or non-formal education at home. This fact raises the challenge of creating OSH-related sessions for workers with little or no formal literacy.

The MD site is in the initial phase, that is excavation and digging of earth, which restricts the building of the infrastructures, facilities. Because it a new site, safety standards are needed for excavation but the availability of application of standards are minimal. The site is not as tidy as TD, and tunnels, walkways, and roadsides are not as clean as they should be as per OSH standards.

Workers' years of experience in construction range from 1-5 years (47 percent) to 6-9 years (6 percent), 11-15 years (9 percent), and 18 percent each for 16-20 and 21-30 years.

a. Workplace Safety

The Safety Supervisor at the MD site informed the fieldwork team that CGGC have their own OSH standards and safety policies, which are implemented at the site. It was not possible to verify this. The Safety Department conducts regular fire drills. Only 12 percent of MD respondents said that daily toolbox meetings are held.

Ninety-seven percent of workers at MD say they are aware of worksite hazards and 86 percent are aware of their responsibilities for safety. 54% of MD workers have had an accident during their working life. The majority of the accidents mentioned were slips and falls. Only 46 percent of survey respondents said they had had training related to their trade: these were almost all vehicle drivers and forklift operators. Only 28% of MD workers have any knowledge of Pakistan's safety laws.

The following Workplace Safety courses are supposed to be held and their records maintained as per the contractors' agreements: Emergency First-Aid at work

- Basic fire-fighting
- Working at heights
- Erection, dismantling and alteration of scaffolds
- Heat stress management
- Hand and Power tools
- Defensive driving
- Traffic management
- Electrical Safety
- Falling Objects

- Rigging / Crane Operation
- PPE Compliance
- Explosives safety

First aid and fire safety trainings were arranged by the safety supervisors at site but the specific trainings were not arranged for any trade at site.

Due to excavation work and the use of heavy vehicles for load shifting, accident and road safety training sessions were organized for drivers and workers. According to the workers, supervisors and union leaders, road and safety signs are available in English, Urdu and Chinese but are not yet installed. This is due to happen when the excavation work is completed and the dam construction begins.

The Safety Supervisor at MD indicated that CGGC have their own OSH standards and safety policies, which are implemented at the site. These are intended to provide health facilities for workers and a referral system for injuries and other diseases.

A monthly first aid training calendar has reportedly been prepared and is being followed. There is a comprehensive accident-reporting system on site, which includes injured workers being sent for medical treatment and measures taken to prevent similar accidents. However, there is only one ambulance for approximately 2,000 workers and it is sometimes not available for the workers. There is no hospital at the site but there is a small office with a male nurse and first aid kits. The nearest hospital is almost 10-15 kilometers away from the dam site.

Due to the initial stage of the construction, the turnover of workers is very high and the standards are not implemented with much force. Pakistan Environment Standards and OSHA guidelines are also used for workplace safety at the site.

b. Living Conditions for Resident Workers

The camp facility at TD(4) is up to the mark with all the required facilities. The site is about to close, and the camp and facilities may be shifted to the T5 location. Joint visits of the Contractor's Labour Accommodations, Engineer and Contractors' HSE (at MD) are regularly conducted to ensure the quality of living conditions of their workers. The following dimensions are properly ensured:

- Drinking Water: The drinking water for Contractor's (CGGC and DESCON) filtration plant was tested
 from the approved laboratory and found fit for drinking. Drinking water to work fronts is also provided
 from the main filtration plants.
- Provision of Religious Facilities: A mosque has been constructed at the main labour camp and the
 workers have arranged to hire an Imam. Construction of a mosque at the Main Pakistani labour camp
 has been completed and Hiring of "Imam" is not under the contract, workers have to manage this
 collectively.
- **Laundry Facility:** Dedicated space for a laundry facility has been provided and soon the facility will be provided at the other designated location.
- Portable Toilets: Under process.
- Solid Waste Management: Solid Waste Dumping is managed at the Shabqadar TMA Dumping site.

There is an annual performance award system at MD for best performers (for both locals and Chinese staff), which they announce in January and February, which is the Lunar Year. It is also celebrated at the construction site. It was indicated by the interviewed workers that these awards and rewards are only for the management staff, not for the workers. There is a regular monthly performance and safety award system at the TD, where 3-4 top performers (management and workers) are given a cash award of PKR 8,000.

The contractor at the Mohmand Dam is contractually bound to:

- Provide First Aid facilities and Ambulance Vehicles at the project site.
- Provide necessary welfare and hygiene facilities.
- Take measures to prevent epidemics.
- Keep records of all incidents and occurrences.
- Provide awareness and training of workers and staff regarding Sexually Transmitted Diseases (STDs) and Sexually Transmitted Infections (STIs).

Useful as these are, none is concerned with worksite safety. Only eight percent of workers have attended any work or trade related training in the last 06 months. Eighty eight percent of respondents indicated that the employers did not inform them about workplace safety or any trade related safety orientation during their employment.

Contractual agreements and commitments to OSH have been developed and signed but the lack of monitoring makes it impossible to verify whether these are being met.

Only thirty percent of the workers interviewed reported having safety equipment such as helmets, eye protection and work gloves.

c. Trade Union Involvement

Although Union organizing efforts are in process, workers have no Trade Union representation, so are working and living with many difficulties. FGD attendees cited an instance in which workers went on strike to protest sub-standard living conditions on-site and demanded improvements: the employers fired all of them and replaced them. Trade Union members noted during an FGD that "during Ramazan, some workers stopped working till EID. The Project Manager (MD called the HR contractor who brought 150 workers from outside in the evening and approximately 300 local workers were fired.

> The system was much improved after the arrival of the Union and support from the HSE (MDCG) Consultant. They are playing a very positive role in communicating with employers about workplace hazards, preparing NCRs, conflict resolutions, and so on,.

(HSE Officer, Mohmand Dam).

The majority of workers interviewed were unaware of the legal protection provided by the government for their safety and health.

It is impossible for union leaders to conduct training sessions on-site at the MD. Even if a training curriculum is designed for the workers and local trainers are trained, sessions can only be conducted off-site. Workers may then have to pay for the travel, food and accommodation with their wages.

FGD attendees noted that "If a worker took a day off for his or a family member's marriage, a death in the family or other children's ceremonies (e.g. Hifz-e-Quran,), they were not allowed to come back on duty. All were terminated with the fear of COVID-19. Local people were more victimized: Workers had to get their own testing done, and collect evidence (from their own resources) before rejoining their duties. If a Mohmand resident worker visits his home he is fired and never hired again due to fear of COVID-19".

Once a worker visits his home, he is tested right after his arrival and then sent to quarantine for 14 days, which is not paid: workers have to buy food during these days from their own pockets After the quarantine, another test is conducted, if the result is negative, he is allowed to work again. Respondents of Workers FGDs at Mohmand Dam

Respondents of Workers FGDs at Mohmand Dam



According to FGD participants at MD site (union leaders and workers) non-unionized workers face many disadvantages, including being forced to work without PPEs, forced termination and having no grievance access to paid leave or overtime pay. In contrast, the unionized workers have advocated for their health, safety protections, wage increases and other health related issues. During COVID-19 the Collective Bargaining Agents of the Awami Labour Union (PFBWW-ALU) played an important role in ensuring employment guarantees such as measures to secure wages, overtime, lock-down payments, provision of health facilities, provision of PPEs and temporary flexible working arrangements.

The MD site is comparatively new and it will take time for compliance, formation and performance to take effect. As per the interview respondents (Safety Manager and workers) the conditions and situations are getting better since the Union has been working quietly at the MD. It is expected that when the Union is officially recognized, approved and welcomed, the workers and their environment will be much better than now.

At the MD site, workers who left the site for personal or family illness, marriages or funerals were terminated. In some instances, COVID-19 restrictions led to a reduction of attention to worksite safety measures. There have also been observed instances where work changes to accommodate COVID-19 guidance have introduced a secondary risk. For example, as a result of site rules to reduce the number of people using lifts and hoists at any one time, queues can form and workers elect to carry equipment up staircases with greater risk of falls or dropping tools. To some extent attention was focused on the COVID-19 risk at the expense of awareness and vigilance of more general safety. This is because COVID-19 has acted as a distraction, reducing the capacity of front-line workers and management to focus on day-to-day safety concerns.

There was visible discrimination in the use of COVID-19 SOPs at the MD site. COVID-19 testing was regular and compulsory at the site, as noted. Masks were provided to workers when required. However, wearing a mask is optional when working with local mates but while interacting with a Chinese worker a mask is mandatory. The SOPs were highly concerned for the safety of Chinese employers and workers, but not for local workers. At the Canteen Facility, COVID-19 SOPs were strictly observed for local workers, but the Chinese were free to observe them or not.

3. Compliance with Covid-19 Protocols/SOPs at Both Sites

The construction industry slowed down significantly in 2020-2021 due to the Covid-19 pandemic. COVID-19 has affected the pace and performance of work. It has also resulted in job losses, reductions in the amount of work available and restrictions on workers' movements. There is a significant need to ensure that construction workers can quickly return to working safely, and in a flexible manner that might withstand subsequent local lockdowns, future waves or even future pandemics.

During COVID-19 the construction sector was identified as an Industry. Since there was no OSH law for the construction industry, OSH was introduced by the Federal Government and then adopted by the provinces. As an unfortunate result of the absence of OSH laws (non-availability of rules), implementation is still lacking. Nor has OSH inspection been formalized or included in the labour inspection system. Inspection of OSH conditions therefore relies on the outmoded Factories Act (1934), in which employers can claim that they have no responsibility, because the Factories Act does not refer to the construction sector.

The Guidelines for Preparedness of Workplaces for COVID-19 in Pakistan serve as the best objective measure of compliance for OSH precautions at the two construction sites. The COVID-19 measures implemented indicate that COVID-19 has been taken seriously and sufficient mitigation measures have been implemented and enforced.

Work has continued at both sites since the onset of the pandemic, with precautions and restrictions implemented and strictly followed. It was noted during the focus discussion that "During the COVID19 pandemic, the Government of Pakistan introduced the COVID-19 SOPs with force compliance and mass communication through media and social media, but the Department does not have the resources to conduct any sessions or orientations for workers about the COVID-19".

94 percent of TD(4) workers interviewed said they had worked during the pandemic, while 69 percent of MD workers said they had. 100 percent of TD(4) workers and 77 percent of MD workers received orientation on COVID-19.

PPEs were made available to workers. Strict quarantine requirements were put in place although with no wages paid. All new workers at both sites were given training and orientation on awareness, warnings, and compliance with COVID-19 regulations and the use of COVID-19 SOPs. Other planned training courses were cancelled. One respondent noted that COVID-19 awareness, SOP and related training was not included in the overall training program, but later significant time and resources were allocated on an emergency basis".

> **Demand for Better Living Conditions Cost Job** Due to bad living standards, workers went on strike and demanded improvement in living conditions, employers fired all of them and found new workers.



A WWF official noted that "due to COVID19, the Government of KP announced a paid lockdown for the workers from 24-Mar-2021 to 31-May-2021. Employers were reluctant to pay the salary during lock down. Due to the union leaders' influence, 550 workers were paid all dues (as per the GoP's announcement).

COVID-19 SOPs and warning signs have been placed where required at both sites. Additional staff was deployed at entrance gates with required devices to measure workers' temperatures as they entered the site. The employers at the Mohmand Dam site (CGGC) have an agreement with Al-Hikmat laboratory for COVID-19 testing of workers. However, workers had to get their own testing done and collect evidence (from their own resources) before rejoining their duties.

According to the workers "when COVID-19 was first detected the companies designed and implemented emergency programmes of awareness, SOPs and on-the-job training. They allocated significant resources to ensuring that workers were protected. In addition to the regular safety regulations and training, regular sessions on COVID19 awareness and precautionary measurements were held.

a. <u>Contractors' Response to COVID19 Pandemic</u>

As the COVID-19 coronavirus has spread across the globe, many companies have been idled but a few mega construction projects were deemed essential to continue with all possible inputs and COVID-19 security. The Tarbela, Mohmand, Dhasu and Bhasa dams have thus continued operations without interruption.

Workers, supervisors, and safety professionals on those projects were advised to strictly follow the SOPs to protect workers and their families from exposure to COVID-19. The Government of Pakistan introduced interim guidelines to maintaining safe working environments in many sectors, especially construction.

100 percent of TD(4) staff received orientation on COVID-19. Additional staff was deployed at entrance gates with required devices to measure temperature of workers entering the project site: other necessary precautions are strictly followed in offices and on the project site. The contractors publicly proved that they can work safely and prevent the spread of COVID19 while supporting the nation's critical infrastructure and providing much-needed income for the people who work on those projects.

The workers' own roles and contribution in fighting COVID-19 cannot be ignored. A large number of workers followed the SOPs on their own while some also followed the forced implementation by the Government of Pakistan. Some workers at MD had many difficulties, including: fear, restrictions, instability, working with SOPs and PPEs, fewer workers, less work, threats by employers to work non-stop, homesickness and loss of wages and employment due to COVID-19 in themselves or their families.

The observation from current working, is that some sites seem to be focused on COVID-19 risk at the expense of awareness and vigilance of more general safety. This is in part because COVID-19 has acted as a distraction, reducing the capacity of front-line workers and management to focus on day-to-day safety concerns. While there is no data as yet, the impression is that safety standards have slipped back and there is a lack of focus, particularly on those sites where safety behaviors and culture were already less than ideal.

b. <u>Standards and Protocols at Mega Construction Sites</u>

Employers and supervisors are obliged to implement all reasonable precautions to protect the health and safety of workers. Although the focus of WAPDA is on the operational phase of the projects, much of the guidance also applied to construction and decommissioning activities. Companies should hire contractors that have the technical capability to manage the OSH issues of their employees, extending the application of the hazard management activities through formal procurement agreements. Preventive and protective measures should be introduced according to the following order of priority:

- **Eliminating** the hazard by removing the activity from the work process. Examples include substitution with less hazardous chemicals, using different manufacturing processes, etc.;
- **Controlling** the hazard at its source through use of engineering controls. Examples include local exhaust ventilation, isolation rooms, machine guarding, acoustic insulating, etc.;
- **Minimizing** the hazard through design of safe work systems and administrative or institutional control measures. Examples include job rotation, training safe work procedures, lock-out and tag-out, workplace monitoring, limiting exposure or work duration, etc.
- **Providing** appropriate personal protective equipment (PPE) in conjunction with training, use, and maintenance of the PPE.

Source: A Global Trend Analysis on the Role of Trade Unions in Times of COVID-19, ILO

c. <u>Impact of Covid-19 on Resources</u>

The need to reduce the number of people on site has typically been applied to managerial roles. This includes safety management roles, where those who may have regularly been on-site now rarely visit the site. The result is that there is a reduction in focus on general safety, resulting in reduced compliance. Additionally, an implication of COVID19 is that there have been fewer competent people on site, either through illness or due to efforts to limit the numbers of people for reasons of social distancing. The implication is that, with fewer competent people, staff have to resort to workarounds and less safe practices. For example, with fewer people on site with the skills to move materials and tools, workers may resort to manual lifting and carrying, and pressure remaining to work more quickly for those operating the plant.

According to the MD safety representative, joint training and orientation calendar and activity plans are developed for different sites with different workers based on requirements. The requirement is generated, designed and prioritized from the data received in monthly "Accident Status Reports." The Safety Manager claimed that they regularly organize the safety trainings for specific trades but as per workers and Union leaders, the management has conducted sessions on First Aid, Fire Fighting and COVID-19 SOPs but trade specific trainings (e.g., Hazards, Transportation, Tunnel, Excavation) have not been organized. The Safety Manager also said that HSE (Health Safety and Environment) meetings were held at the site frequently for safety and environmental protection.

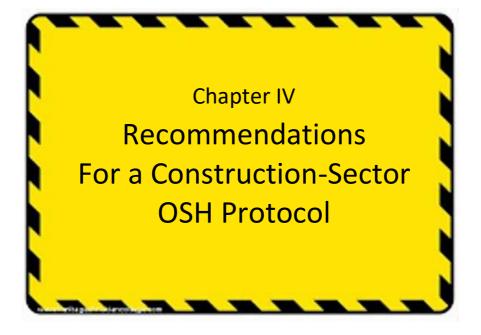
Workers in TD said they were completely satisfied with the training provided but workers at MD thought there was still a need to improve the quality of the training. The workers at TD are fully trained in the use of PPEs, and compliance is very strict and SOPs are strictly followed, while at MD its training and use are limited. The main reason for not using PPEs is availability.

Unfortunately, workers are not informed about the existence of safety committees, their role and the support they can get from these committees. There is no announced safety committee at MD but a joint inspection team is formed to discuss occupational safety. The team includes a Consultant, WAPDA engineers, the Safety Manager and contractor's/employers representatives. No workers' representative or union leader is part of this safety committee at either location.

4. Incident Reporting

There is a comprehensive incident reporting system at the sites with the following steps:

- 1. Prescribed accident form for reporting
- 2. Submitted for investigation (to WAPDA management)
- 3. Investigation report is prepared
- 4. Causes are identified
- 5. The worker is sent for medical treatment
- 6. The required precautionary measurements are adopted for future safety.





V. Recommendations For A Construction-Sector OSH Protocol

1. Preamble

Although much valuable information was collected and analyzed, the study would have yielded much more comprehensive results had physical access to the sites been possible and had project documents been made available. It is to be hoped that subsequent efforts to study OSH at the construction sites can be granted better access. A lot can be learned from studying the two sites, assuming permission is granted.

The present study found that the PFGW-ALU has left an excellent footprint at TD4. Learning how this was achieved, in terms of obstacles overcome, knowledge acquired and effective communication established, can be put to use at the TD(5) extension and especially as the TD site completes the excavation phase and moves into the construction phase.

As noted earlier, some worksites seem to be focused on COVID-19 risks at the expense of awareness and vigilance of more general safety. This is in part because COVID-19 has acted as a distraction, reducing the capacity of front-line workers and management to focus on day-to-day safety concerns. While there is no data as yet, the impression is that safety standards have slipped and there is a lack of focus, particularly on those sites where safety practices were already less than ideal. According to one US study ¹² Guidance for COVID-19 must be implemented in a way that reflects working practice and pressures. There is ... a potential knowledge gap regarding the practical feasibility and impact of applying COVID-19 measures within construction, made more difficult by factors such as the temporary nature of projects and complex working arrangements." The study adds: "[It] is vital to ensure safe application of COVID-19 working practices. The key message is that COVID-19 needs to be integrated and promoted within a general risk management approach, in part because this takes account of differing priorities regarding safety risks, rather than overly focusing on COVID-19, and also because the effectiveness of COVID-19 mitigations can be amplified by integration with pre-existing safety processes".

2. GAPS and Challenges Identified

- International Labor Standards: The ILO Labour Inspection Convention (No. 81), ratified by Pakistan in 1953 and including an Individual Case Discussion (2014), does not include a training programme for Labour Inspectors. The ILO Occupational Health Services Convention C-161 (1985) has not been ratified by Pakistan. The same applies to ILO Conventions 167 (Convention on Safety and Health in Construction (No. 167) 1988 and its accompanying Recommendation (No. 175) and to the Hazardous Substance Rules 2003.
- OSH as National Priorities: The National Labour Policy (2010) does not apply to OSH on construction sites. The requirements contained in the Occupational Safety and Health Law (2018) to establish a Pakistan National OHS Council (Section 4), a Pakistan Safety Council and a National OHS Directorate (Section 7) have not been met.
- Enforcement of Law: The Provincial Departments of Labour is tasked to investigate, inspect and ensure compliance with all relevant laws at factories and other sites. It was revealed during a meeting with officials that the Inspectors are not allowed by the Chinese contractors at any of the study construction sites. High security at the sites was cited as the reason. The Labour Department (KP) is responsible for inspecting these sites under the applicable laws, but unfortunately, they do not have access to the mega sites. The role of the law enforcement agencies is very weak and limited, due to the employers' resistance. The traditional inspection system does not include specific areas of inspection for the construction sector. Labor Inspectors are reluctant to visit any construction site to inspect safety and health conditions, as there is no clarity on the relevant laws and rules. There are no checks and balances in the Labour Department procedures to guide the Inspectors in their obligations.

 $^{^{\}rm 12}$ Stiles et al., 2021. Impact of COVID-19 on Health and Safety in the Construction Sector.

- MIS for Incidents Reporting: There is no national database or provincial databases of accidents, injuries and outcomes in the construction industry. Nor is there a formalized course of Labour Inspection training that informs the Department of Labour Inspectors and others with related responsibilities of their professional obligations.
- Employers almost without exception do not comply with OSH standards. In the construction sector this effort is almost zero. Even some mega construction sites do not comply with OSH standards at the bare minimum level. Employers do not consider "Return on Prevention" at the workplace. Labour Inspectors are unable to conduct mentoring and monitoring functions to convince employers to adopt OSH procedures.
 - There is almost no trade-specific or structured OSH training given by any contractor (except DESCON) at the workplace. Another challenge lies in developing a training curriculum suitable for people with low levels of formal education.
- Participation in Safety Committees: Workers are not informed about the existence of safety committees, or their potential role and the support they can get from these committees. There is no safety committee at MD but a joint inspection team is formed to discuss occupational safety. The team includes a Consultant, WAPDA engineers, the Safety Manager and contractor's/employers representatives. No workers' representative or union leader is part of this safety committee at either location.
- Workers are not aware of their constitutional, legal and safety rights at the workplace. Except for the mega construction sites (with national and international contractors), construction workers earn daily wages: because they migrate to job sites and because they must compete with others for work, they are unable to demand safety precautions on job sites. Since employers and Government Departments discourage TU formation, workers are afraid to organize for their personal and professional rights. Whenever they try to organize they are penalized. Trade Unions can play an important bridging role between employers, workers and OSH enforcement agencies but the majority do not. ¹³ Honest and willing unions lack the capacity and resources to inform workers about their rights at the workplace. There is no assessment done at any level to rate and rank the unions with respect to their performance and support provided to workers.
- Monitoring: A comprehensive monitoring and inspection system is available in all four Provinces but is
 not implemented. The ILO introduced a model inspection system with gender mainstreaming efforts,
 an MIS and systematic reporting in 2013. It highlighted 13 thematic areas, including OSH, in the
 inspection system. The <u>Gender Sensitive Labor Inspection System</u> is available on the ILO website and
 other countries are utilizing it. Unfortunately, none of the Provincial Departments has been willing to
 adopt it due to senior managements' transparency and accountability concerns.
- Learning from the Experience: Little or nothing has been learned by the Government, OSH monitoring and enforcement agencies, the contractor (WAPDA) and the employees, from the decades-long experience of implementing OSH at the TD site that could have been applied to the MD site in the excavation stage. If nothing changes, this lack of attention to OSH may continue to apply throughout the years of MD construction.

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 $^{^{\}rm 13}$ These are often referred to as "Pocket Unions".

3. Recommendations

Towards a National Construction-Industry Protocol to address OHS at Construction Sites

a) Legislation

- The Guidelines for Health & Safety of Building & Construction Workers during COVID-19 Outbreak.
 Ministry of National Health Services, Gov't of Pakistan. (11 April 2020 ¹⁴ should be formalized as a specific Covid-19 Policy for Construction and integrated into the National Occupational Health and Safety Act (2018).
- COVID-19 should be considered as an occupational disease and should be discussed in detail with employers' responsibilities in the development of rules for Occupational Safety and Health Law at provincial level.
- The Labour Policy (2010) requires updating to include specific attention to OSH on construction sites, including mega construction sites, and to comply with the Government's Covid-19 prevention and mitigation Guidelines April (2020).
- ILO Labour Inspection Convention No. 81, ratified by Pakistan in 1953, should be applied to construction sites, including mega-dam sites.
 - A course of Labour Inspection training should be generated, so that Department of Labour Inspectors and others with related responsibilities are fully aware of their professional obligations.
 - The Convention's requirements should be cross-referenced with the National Occupational Health and Safety Act (2018).
 - The central national inspection authority should meet its obligation to publish an Annual Report including information on the labour inspection staff and activities, as well as on occupational accidents and diseases known to the labour inspection authority.
- Requirements for ratification of the ILO Occupational Health Services Convention C-161 (1985).
 should be met and the Convention brought into force. The same applies to ILO Conventions 167 (Convention on Safety and Health in Construction (No. 167) 1988 and its accompanying Recommendation (No. 175) and to the Hazardous Substance Rules 2003.
- OSH-related Laws and International Conventions that are in force should be reviewed in light of the
 construction industry, brought up to date and fully implemented. Other relevant Laws should be
 brought up to date to include construction sites.
- Implementation plans, strategies and annual reports specific to OSH should be made mandatory and should include monitoring Covid-19 outbreaks, mitigation measures and outcomes.
- The construction sector, including mega-construction sites, should be brought under the full jurisdiction of relevant labour legislation, in the form of a National Protocol and attendant organizational structures and systems, following the recommendations in the National Occupational Health and Safety Act (2018)¹⁵
- The requirement to establish a <u>Pakistan National OHS Council</u>, a <u>Pakistan Safety Council</u> and a <u>National</u> OHS Directorate, included in the Occupational Safety and Health Law (2018) should be met.
- Many construction workers are not formally literate, so cannot read messages about safety and health.

b) Government and OSH Law Enforcing Agencies

- Although the Constitution of Pakistan and numerous legislative Acts guarantee a just and humane working environment for labour, these construction workers toil under the most abject working conditions. Given that the state is the main infrastructure developer everywhere and that a large proportion of the Public Sector Development Programme is allocated to infrastructure development, even a small amount of focused effort in the right direction would go a long way in improving the workers' conditions.
- The Government should enforce labour standards in public contracts, and should require contractors to pay at least minimum wage, as well as to sign an employment contract and to register workers with social insurance institutions.

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¹⁴ http://covid.gov.pk/

¹⁵ Developed by the Pakistan Chapter of the American Society of Safety Engineers

- The Government should support the formation of construction-worker cooperatives at the Union Council level, or the reactivation of employment exchanges at Union Councils.
 - Such exchanges could register construction and other informal sector workers, conclude employment contracts with prospective employers on behalf of workers, and ensure their registration with social insurance institutions.¹⁶
- The Labour and Human Resource Department should establish a strong relationship with the employers of mega worksites, to ensure they are fully informed about compliance with OSH legislation.
- An effective OSH training programme should be designed and implemented. It should include a Training
 of Trainers component.
- The <u>L&HR</u> should conduct regular, unannounced safety inspections to ensure a safe working
 environment for all workers. These inspections may also be utilized as occasions for employers to
 inform employees of OSH requirements and to stress the need for employees' compliance with OSH
 measures.
- There is a wide range of accident-prevention related material, posters and pocket books available with L&HRDs for free distribution, which can be obtained and distributed to workers for their education. (http://ciwce.org.pk/saaciwce-publications/)

The Protocol should include requirements for:

- The creation and maintenance of an OHS MIS and data collection, analysis and reporting.
- Creating and following OHS strategies, Implementation plans and annual plans
- The adoption of ILO Decent Work standards
- The strict enforcement of all relevant Labour Laws and Policies
- Defining the responsibilities of the Labour and Human Resource Department with respect to OHS, to ensure that the Department is fully informed about compliance with OSH legislation.
- Ensuring through its OSH legislation that employers implement safety regulations and practices at all stages of construction, including the excavation stage.
- Developing and pilot-testing OSH Protocols at both dam sites and at subsidiary worksites, in line with a National Protocol on OHS.

c) Employers should

• Compliance:

O Comply with the OSH worksite agreements they have signed, including the maximum provision of resources, training and PPEs (both for physical safety and for Covid-19).

OSH Trainings

- o Provisions should be made to provide OHS orientation training to all new employees to ensure they are apprised of the basic site rules of work at / on the site and of personal protection and preventing injury to fellow employees.
- Organize regular OSH training sessions as per their HSE Management Plan for construction sites with the goal of zero accidents, and ensure that workers understand that these sessions are critical for their safety.
- Training should consist of basic hazard awareness, site specific hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate. Any sitespecific hazard or color coding in use should be thoroughly reviewed as part of orientation training.
- A basic occupational training program and specialty courses should be provided, as needed, to ensure that workers are oriented to the specific hazards of individual work assignments.
 Training should generally be provided to management, supervisors, workers, and occasional visitors to areas of risks and hazards.
- O Workers with rescue and first-aid duties should receive dedicated training so as not to inadvertently aggravate exposures and health hazards to themselves or their co workers.

The Whistlers, Institute for Labour Rights.

- Training would include the risks of becoming infected with blood-borne pathogens through contact with bodily fluids and tissue.
- Ensure (perhaps by employing a consultant specialist) that video versions of safety information is produced and made available to workers who are not formally literate.

Monitoring and Assessments:

- o Through appropriate contract specifications and monitoring, the employer should ensure that service providers, as well as contracted and subcontracted labor, are trained adequately before assignments begin.
- O Conduct an assessment of the OSH practices at the TB(4) site to identify best safety practices, and ensure that these are followed and monitored at the TB(5) and at all stages of the Mohmand Dam construction.
- Apply prevention and control measures to occupational hazards based on comprehensive job safety or hazard analyses. The results of these analyses should be prioritized as part of an action plan based on the likelihood and severity of the consequence of exposure to the identified hazards.

• Grievance Mechanism:

O Maintain a strong, effective and confidential grievance system. The system should ensure rapid response and compensation where appropriate.

• Grievance Mechanism:

- allow necessary access and time to Trade Unions, to allow them to function according to their constitutional and legislative rights and inform workers about their responsibilities in OSH compliance.
- Ensure active Trade Union representation in the HSE and other Safety Committees and ensure workers' representation on those Committees.

d) <u>Workers</u>

- Should attend OSH and other training and capacity building sessions for their own safety and health and understand that these sessions are critical for their safety.
- Should be made part of the overall safety program through recognition and incentivization. Workers should join trade unions to strengthen the unions' rights and advocacy efforts.

e) Trade Unions

- Should lobby with employers to participate in Safety Committees for workers' representations.
- conduct training sessions (e.g. the SAFETY FIRST training curriculum) offsite or onsite to orient workers about their rights to personal and professional safety.
- Develop a joint strategy to address health and safety concerns in at least one construction site based on the research.
- Identify best practices adopted in Pakistan by construction workers and employers, trade unions, workers' associations, PFBWW, ACEEU and BWIs and draw on these to improve OSH implementation and strengthen training courses.

ANNEXES

Labour Policies Other Than Those Focused Directly on Construction

The Government of Pakistan has introduced a number of labour policies, designed to assist and encourage employers, organizations, institutions and geographic areas governed by the Federal Government in their efforts to ensure healthy and safe working conditions and to provide for research, information, education, and training.

- Hazardous Occupation Rules, 1963 (No. 1-6 (L-II/64).
- Fatal Accidents Act, 1935
- Other Leave Entitlements
- Minimum Age and Protection of Young Workers
- Equality and Discrimination
- Registration of trade unions
- Collective Bargaining and Agreements
- Collective Labour
- Disputes (Commencement of a dispute, Conciliation, Arbitration)
- Labour Court

Background to the Fieldwork

Under the "Promoting Decent Work" project, the Labour Education Foundation (LEF), ¹⁷ In close collaboration and partnership with BWI and its national affiliates the Pakistan Federation for Building Wood Workers (PFBWW) and Associated Consulting Engineers Employees Union (ACEEU), aims to improve working conditions in the construction sector in Pakistan. The mission is to equip Pakistan's construction industry with the resources needed to strengthen health and safety standards and COVID-19 mitigation strategies. The project's objectives are:

- to document health and safety needs and develop resource materials; and;
- to enhance the working conditions of construction workers in Pakistan.

Additionally, the study findings will assist in determining the duties of various stakeholders in promoting workplace safety, health and advocacy on behalf of workers' rights in Pakistan's construction sector.

Significance: The study provides 'big picture details' of the situation of OSH in the construction sector and will contribute to enhancing the OSH-related knowledge of implementing agencies, and will provide recommendations for measures to fill identified gaps. The study is also significant in providing information and protocols for OSH especially in specific pandemic conditions like COVID-19. The post study recommended interventions will help the stakeholders (i.e., through capacity building of employers, workers and their representatives) to remain safe in their working environments.

The study findings will lead to increased awareness raising for the workers' for their personal and occupational safety. If the recommended solutions and protocols are adopted by the employers and if their role is recognized by the enforcement agencies, workers at worksites may be able to safeguard their health and meet their safety needs.

Scope of the Study

The site selection was based on a specific criterion: i.e., construction sites where BWI's trade unions are active and functional.

A number of significant limitations were encountered during the field research. Access to necessary project documents (reports, policies and protocols) necessary to design the research framework and methods was prevented by security restrictions imposed by the Chinese and contractors managing the construction sites. Due to the nature of the construction sites and the levels of security required by the international companies on site, access to these documents was impossible. The documents and standards that are included are the outcome of the discussions and interviews with key officials. Few documents were obtained by the consultant through personal influence. The findings presented in this report are the outcome of discussions and interviews with key officials and a review of documents, standards and protocols collected through the consultant's personal linkages.

A planned transit walk of the sites could not be conducted because of security restrictions. COVID-19 protocols slowed the pace of the research and restrictions were placed on workers' movements away from the work site: i.e., they were not allowed to leave the worksite without prior permission: the penalty would have been 14 days of unpaid quarantine.

An NGO formed in 1993 https://www.lef.org.pk/

Although much valuable information was collected and analyzed, the study would have yielded much more comprehensive results had physical access to the sites been possible and had project documents been made available. A lot more can be learned from further studying the two sites, assuming permission is granted.

Many workers at both sites were reluctant to meet the research team members, in part because of limitations on their movement imposed by site management. The availability of respondents and their hesitation to meet and respond was a limiting factor. The release of workers for this purpose is quite difficult: they were not allowed to leave the jobsite without prior intimation, even in their leisure time. If they are found to be violating this condition, they are quarantined for a period of 14 days without pay, which affects both the work and the workers' wages. Workers must apply for leave, and a worker is released only if an alternative is available. If they are late returning to work, they are penalized in different ways.

A bomb blast at the Dhasu construction site (in Kohistan) in 2021 resulted in heightened security at all major construction sites, especially those with foreign contractors and workers. Rangers are patrolling the site and no outsiders are allowed to enter.

With the help of Union Leaders, it was possible to get the workers out for the FGDs and the survey but it was an expensive solution. LEF paid a significant amount (which was not budgeted beforehand) for respondents' their travel, stay, food and wages (which was double because it was Sunday).

More time than allocated was consumed for field data collection due to COVID-19 and religious events (*Eid-ul-Azha* and *Moharam-ul-Haram*¹⁸) in Pakistan, which initially slowed down the research process.

Religious events of Muslims across the Globe.

Research Methods for Fieldwork

A data collection framework was developed, with a focus on construction workers' OSH practices and their status during COVID-19. Secondary sources were also used to obtain the necessary data, which was subsequently validated with input from individuals, worker groups, trade unions, associations and specialists. The following elements were included in the study:

The Qualitative Research utilized:

- 1. **In-depth Interviews**¹⁹ (**IDIs**): Interview protocols for each interviewee were prepared with respect to their role and mandate in the construction sector. A total of 12 IDIs were conducted with staff, trade union representatives of PFBWW and ACEEU, construction workers' federations representatives, OSH specialists and experts and representatives of OSH-related law enforcement agencies.
- 2. **Focus Group Discussions (FGDs)**²⁰: Guidelines were a developed for discussion and 04 sessions were conducted with approximately 78 workers and representatives of trade unions.
- 3. **Field Visits/Observations:** had been planned but were not allowed.
- 4. The observation findings are based on discussions with site managers, workers and union representatives and on insights provided by the safety supervisors at the worksites.

Quantitative Research

A brief survey instrument was developed and translated (after approval from BWI and SC) into the local language Urdu and Pushto and 67 workers²¹ were interviewed, all male. 35 workers were contacted inperson at the Mohmand Dam site and 32 from the Tarbela Dam site were interviewed online to obtain their opinions about the COVID-19 scenario and OSH protocols at their particular construction site. No women workers could be interviewed due to the nature of site.

Data Collection and Analysis

The survey data was imported and analyzed using SPSS. Data from the FGDs and IDIs was transcribed and analyzed for content and organized in accordance with the study's research objectives and requirements.

List of persons interviewed is attached as **Annex 02**

List of persons invited for discussion (FGDs) is attached as **Annex 03**

List of workers survey respondents is attached as **Annex 04**

Factors and Conditions Contributing to Workplace Accidents

UNSAFE ACTS

Lack of use of PPE Use of defective tools despite provision of

UNSAFE CONDITIONS

fective equipment's Improper apparel Improper ventilation No safety devices



CONSEQUENCES

Production delays Property damage

CONTRIBUTING FACTORS

SAFETY MANAGEMENT

Inadequate
instructions Rules not
enforced Safety
ignorance Hazards
ignorance
No safety devices

MENTAL CONDITIONS OF WORKERS

Lack of safety awareness Lack of coordination Nervousness

Inattention

PHYSICAL CONDITIONS

Fatigue Poor eyesight Unqualified workers Handicapped







Images from the Construction Sites

Grievance Mechanism: Complaint registers are available at both sides (right and left bank) of the project. The records of the complaint register are presented to HSE for actions. Issues related to work and camp are being registered and resolved under this system.



Complaint Register



Complaint Register



Training Booklet on Occupational Safety and Health (73 pages)



Flyers on Dengue Fever



Efforts Paid Off

The Pakistan government recognized the construction sector as an essential industry vital to keeping the economy afloat during the COVID-19 pandemic. Construction work has fully resumed in many parts of Pakistan. The BWI-affiliated Pakistan Federation of Building and Wood Workers (PFBWW), is actively organizing workers in several mega-infrastructure projects, such as the Karor Hydropower, Mohmand Dam, Suki Kinari and Tarbela Dam, and is raising concerns over their working and living conditions.

PFBWW demanded that employers and contractors implement COVID-19 safeguards at worksites to ensure workers' health and safety as they continue their work and avoid project shutdowns. The PFBWW-ALU with the help of a grievance redressal committee (GRC) met with Chinese contractors, WAPDA, and project consultants to discuss the Ramadan work schedules, payment of wages for days declared as holidays (24-30 April) due to COVID-19 and the mess menu in company-provided accommodation facilities. The doubling of overtime payments during lockdown, cash payment for unutilized leaves at the time of termination and advanced payments before Eid holidays were also demanded by the union. The management agreed to these demands and paid the workers' long pending wages and benefits.