



# In case of Emergency





# Before





# HSE - Challenges

## National level

- Absence of National Safety Culture
- Global Climate Change – Heat wave & Urban flooding
- Biased media and hostile public

## Organizational Level

- Rigid mindset
- Vertically Integrated Company- Gen Plants, Transmission lines, Grid Stations, Sub Stations & Distribution Network
- Control of Safety Performance- Distribution spread over 6500 Sq.km area
- Contractor staff – Inadequate Competency and limited skills available in the market
- Management of Change – inadequate career & Succession Planning
- Lack of Automation
- Minimizing Public Interference – Hook Connection Infested areas
- Encroachments.



# HSE – A journey Towards Perfection



**“Create a safe and healthy workplace which minimises risks for all stakeholders and promotes sustainable business”**

*Vision*



# Focus Areas

- Safety a Core business value- Leadership Commitment
- HSE Risk Management
- Structured Safety Management Systems (SMS)
  - Documented System
  - Legal Compliance
  - Sustained HSE Training
  - Performance Monitoring & Measurement
- Health & Safety Initiatives
- Climate Change Initiatives & Challenges





# Safety as a Core business value

## Our Values

**C**USTOMER  
ENTRIC

We aim to satisfy our customers and all our stakeholders by anticipating their needs and delivering the best possible solutions and services.



**A**CCOUNTABLE

We take ownership, initiative & responsibility for all our actions and we are honest and fair in all our dealings.



**R**ESPECTFUL

We respect each other in all aspects and support our communities for societal and environmental well being.

**E**NERGISED

We are energised to inspire and empower our people to add real value for all stakeholders.

**S**AFE

We ensure that safety remains our top priority in all our operations and behaviors.



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We ensure that safety remains our top priority in all our operations and behaviors.



# Leadership Commitment

CORPORATE HSEQ POLICY				
KE - HSEQ POLICY -001	06	8 <sup>th</sup> June, 2018	1 of 1	CORPORATE HSEQ
DOCUMENT NO.	VERSION	DATE OF VERSION	PAGE	ISSUING DEPARTMENT

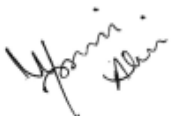


We at KE are committed to surpassing the requirements and expectations of our customers / stakeholders and continually improving upon our Health, Safety, Environment and Quality performance by:

- a) Complying with applicable legal, regulatory and other requirements to which our company subscribes;
- b) Embedding the Health, Safety, Environment and Quality requirements in our routine and non-routine activities;
- c) Preventing injuries and ill health to personnel affected by our activities through a proactive system of risk management;
- d) Conserving natural resources and reducing the carbon footprint of activities by proactively assessing their environmental impact and mitigating their adverse effects;
- e) Ensuring competency of employees by providing them with adequate training, information, instructions and supervision;
- f) Communicating with stakeholders to ensure a mutually beneficial understanding of our HSEQ policies, standards, programs and performance;
- g) Ensuring continual improvement through a system of performance planning, measurement and regular reviews.

KE employees are at the forefront of this policy; for its successful implementation, they shall demonstrate their HSEQ consciousness by practising their assigned safety roles and responsibilities. The policy shall also reinforce our standards of nurturing and developing our substantial talent pool, building shareholder value through performance excellence and improved financial results, and measuring customer satisfaction by providing reliable, safe and cost effective service.

It is my firm belief and a core business value that all accidents and work related ill health are preventable. To achieve this, I shall ensure that timely decisions are taken and resources provided to demonstrate our commitment to implementing our HSEQ vision and strategy.



**SYED MOONIS ABDULLAH ALVI**  
 CHIEF EXECUTIVE OFFICER  
 Date: 8<sup>th</sup> June, 2018



# Leadership Commitment



**Safety Voice Messages by Leadership**



**HSEQ Engagement Sessions**



**Safety Leadership Workshop**



**Top Management Safety Walks**



# HSEQ Organization

## External Engagement & Oversight

### Tier 1

CEO

Chief of HSEQ

- HSE Manual & Policies
- HSE Monitoring & Oversight
- Facilitation for International Certification (QMS/EMS/ OHSAS)
- Community Engagement, Public Safety
- Internal/ External HSE Reporting & legal Compliance (NEPRA, SEPA, IFC, ADB & OPIC)

HSE Distribution

HSE G&T

HSE Enabling Functions

## Operations Tier 2

Distn. Safety Coordinators

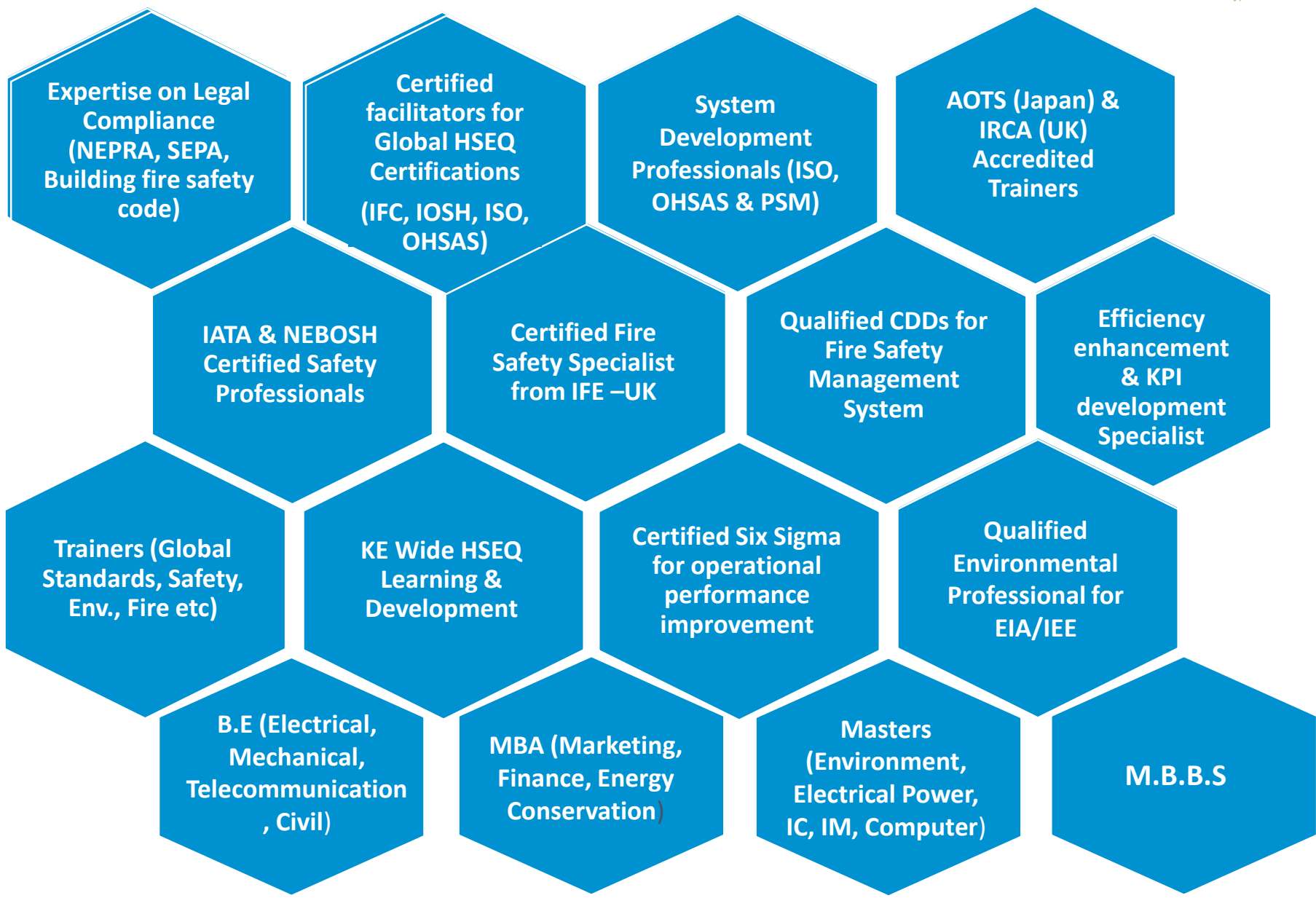
Plant & G&T safety Coordinators

Dept Safety Coordinators

- Sustained HSEQ Internal & External Trainings & Capacity building
- HSE Risk management & Continual Improvement
- Fire & Housekeeping Inspections & Audits

- Monthly/ Annual Rewards & Reprimand
- Safety & Hygiene Audits / Inspection & Spot checks
- Accident/ Incident Investigation, Reporting & Data Management
- Safety Communication/ Advisory

# HSE Team– Core Competencies



# Leadership Commitment-Resource allocation



Financial Year	Safety Initiatives	
FY 2011-12	<ul style="list-style-type: none"> <li>• CHSEQ Policy &amp; procedures</li> <li>• HSE Committee</li> <li>• Document &amp; data Control</li> <li>• Trainings &amp; development</li> <li>• Leadership Engagement Sessions</li> </ul>	<ul style="list-style-type: none"> <li>• Incident/ Accident investigation &amp; Reporting</li> <li>• Hazard reporting - safe Card</li> <li>• Emergency Response Plan</li> <li>• HSE Risk Management</li> </ul>
FY 2013- 15	<ul style="list-style-type: none"> <li>• Fire, Safety &amp; hygiene inspection</li> <li>• Reward &amp; Reprimand</li> <li>• TBT &amp; Safety walks</li> <li>• Environmental Monitoring</li> <li>• Departmental Accidental prevention Plans</li> </ul>	<ul style="list-style-type: none"> <li>• Spill Prevention &amp; Waste Management</li> <li>• Safety Leader Award</li> <li>• Int'l HSEQ Certifications</li> <li>• External HSE Reporting</li> </ul>
FY 2016- 19	<ul style="list-style-type: none"> <li>• Contractor's Management</li> <li>• Safety Marks in APA</li> <li>• HSE Audits</li> <li>• PCB, SF6 &amp; EMF Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Environment Excellence awards</li> <li>• Safety induction training</li> <li>• Confidential Reporting - Suggestion Box</li> </ul>



# HSE Risk Management Program

Assessment Date: Jan 05, 2019

Next Review Date: July 20, 2019


S.R	Distinct Activity	Hazard	Hazard Effect	Existing Control	Original Risk			Additional Control/ Action to ensure ALARP	Residual Risk		
					L	S	R		L	S	R
1	Working in presence of Live Power lines, working with electrical equipment	1. Electrocution 2. Fire	<ul style="list-style-type: none"> <li>Potential Fatality</li> <li>Burn</li> <li>Asset Damage</li> </ul>	<ol style="list-style-type: none"> <li>Presence of concerned department's representatives ( GSM, HT, LT etc) for communicating &amp; ensuring the possible controls of present lines</li> <li>Avoid use of machinery ( electrical equipment) and replace it with Manual work to avoid the source of fire inside the confined space</li> </ol>	Rare	Significant	Significant	Training on use of Fire extinguisher	Rare	Moderate	Minor

- Health & Safety Risk Assessment
- Fire Safety Risk Assessment
- Environmental Risk Assessment
- Employee Engagement Session
- Promoting Safety Ownership
- HSE Risk Management Procedure KE-SP-006
- RA & Mitigation to achieve ALARP




# Documented Safety System

- KE Corporate HSEQ Policy
- KE Corporate HSEQ Manual- **34 Corp- HSEQ Procedures**
- KE HSE-D Manual- **40 Procedures**
- KE HSE- G&T Manual- **21 Procedures**

		CORPORATE HSEQ MANUAL	
KESC-HSEQ MANUAL	1		9 of 58
Document No.		Date of Version	Par

	KE-SP-032	Document No.	00	Version	8 <sup>th</sup> February, 2016	Date of Version	3 of 14	Page
<b>SECTION 1</b>				<b>Quality Management System (QMS) Monitoring and Audit Procedure</b>				
<b>1.0 PURPOSE</b>				The aim of this procedure is:				
This HSEQ Mar focusing on h				1.1 To ensure that appropriate actions are taken to maintain the effectiveness and continuity of the QMS within K-Electric.				
It gives dir occupatir				1.2 To describe the required QMS monitoring and audits method, authorization and responsibilities to plan, perform, report and initiate Corrective and Preventive actions to be taken for the non-compliances with the ISO: 9001 standard and continual improvement of the system.				
<b>2.0 SCOPE</b>				This Procedure applies to:				
This H' unaur pre' co				All K-Electric BUs (Generation Plants, IBCs and Departments) certified to ISO 9001 standard inclusive of outsourced activities.				
<b>3.0 QMS AUDIT CRITERIA</b>								
3.1				ISO 9001 Quality Management System Stan				
3.2				KE Corporate Quality Management System Stan				
3.3				Legal, Regulatory and other st				
1.4				OSP / Vendors complian				

**Corporate HSEQ Issuing Department**

**1 of 17 Page**

**Measurement Procedure**

**Central methodology to monitor relevant national and international**

**those activities of KESC by environmental risk**

**ers / suppliers working within the**

**ram, the following considerations and strategic**

**nce,**

# EHS Legal & Regulatory Requirements

## KE is compliant to following standards & Laws

### International Requirements

- IFC's Environmental and Social Performance Standards
- ISO 14001:2015 Environment Management System
- OHSAS 18001 OSH Management System
- ISO 45001 Occupational Safety & health Management System
- ISO 9001 Quality Management System

### National Regulations

- NEPRA Power Safety Code 2015
- Project Implementation and resettlement of affected persons Ordinance 2002
- Building Code of Pakistan Fire safety Provisions
- Land Acquisition Act, 1894

### Provincial Regulations

- Sindh Occupational Safety & Health Act 2017
- Sindh Environmental Protection Act (SEPA), 2014
- Sindh Environmental Protection Agency Review of IEE and EIA Regulation, 2014
- Sindh Hazardous Substances Rules, 2014
- The Sindh Factories Act 2015
- Sindh Cultural Heritage Act 1994
- Sindh Wildlife Protection (Amendment) Act, 2008



# Sustained Safety Trainings

## Three Tier Training System

1. Training –HSEQ Team Members
2. Training - Dept Safety Coordinators
3. Training - Employees (Level Wise & Job Specific)



## Key Features:

- Safety Induction Training
- Regular Refreshers
- Legal requirement Workshop & Seminars
- Real time scenarios – Case studies
- Interactive Online Safety Training
- Hands-on Practical – 70:30
- Pre & Post Assessments



# Performance Monitoring & Measurement

- Audits & Awards
- HSE Spot Check Inspections
- Third Party HSEQ Certification Audits
- Third Party Environmental Monitoring
- Calibration of Monitoring & Measuring Equipment
- Monitoring and Maintenance of Fire Alarm system & Fire Fighting equipment.



- Review of Monthly Safety trend Analysis
- Safety Employee of the Month
- Safety Team of the month
- Safety Promotional Activity reward
- Safety Suggestion reward



# Health & Safety Initiatives

- Safety marks in APA
- Departmental Accident Prevention Plan
- Hazard Reporting through website/social media/call centre/SMS
- Safety suggestion boxes
- Aerial Platform
- Standardized PPEs / SPEs.
- Grid Firewalls & Flash Suits
- Thermal Imaging
- Automated Fire Alarm System & Regular Fire Drills
- Employee Counselling through their families engagement.

**Click Red Button to report safety Hazard**

Report Safety Hazard

Report Near Miss

Safety Suggestions

Report Unsafe Act / Condition

Report Fire Hazards

**Safety**  
is our top priority

**Safety Reporting Drop Box**

CORPORATE HSEQ



# Public Safety Initiatives

- Fire Safety & Environment Awareness Program-Schools
- SMS Safety Alerts (80% Population -mobile users )
- Safety note printed on KE Bills
- Safety communique' on social media
- 20,000 retro-reflective warning signs on electric poles.
- Hazard Reporting through Internet Safe Card
  
- ABC Projects in encroached areas.
- Summer Monsoon Safety Campaigns
- Removal of Hook Connections & Anti encroachment drives





# Climate Change - Challenges

Threats	Potential Sensitivity to KE
<b>Heat Waves</b>	<ul style="list-style-type: none"> <li>• Reduced Generation efficiency</li> <li>• Increase power demand – giving way to illegal use of electricity</li> <li>• Adverse effect on operation of power plant cooling systems</li> <li>• Increased T&amp;D losses leading to tripping / blackouts</li> </ul>
<b>Urban Flooding</b>	<ul style="list-style-type: none"> <li>• Asset Damage</li> <li>• Plant Downtime</li> <li>• Decrease in rain affect fresh water availability for Gen. Plants</li> <li>• Control systems damage – reduced /inhibiting operations</li> </ul>
<b>Cyclones</b>	<ul style="list-style-type: none"> <li>• Asset/Infrastructure Damage</li> <li>• Damage to facilities</li> <li>• Hindrance to carry business as usual (activities)</li> </ul>
<b>Sea Level Rise</b>	<ul style="list-style-type: none"> <li>• Damage Coastal Infrastructure</li> </ul>
<b>Impact on Employees</b>	<ul style="list-style-type: none"> <li>• Hindrance to carry business as usual – Communication cut off</li> <li>• Security issues due to mob mentality</li> <li>• Efficiency Reduced due to fatigue/ absenteeism</li> </ul>



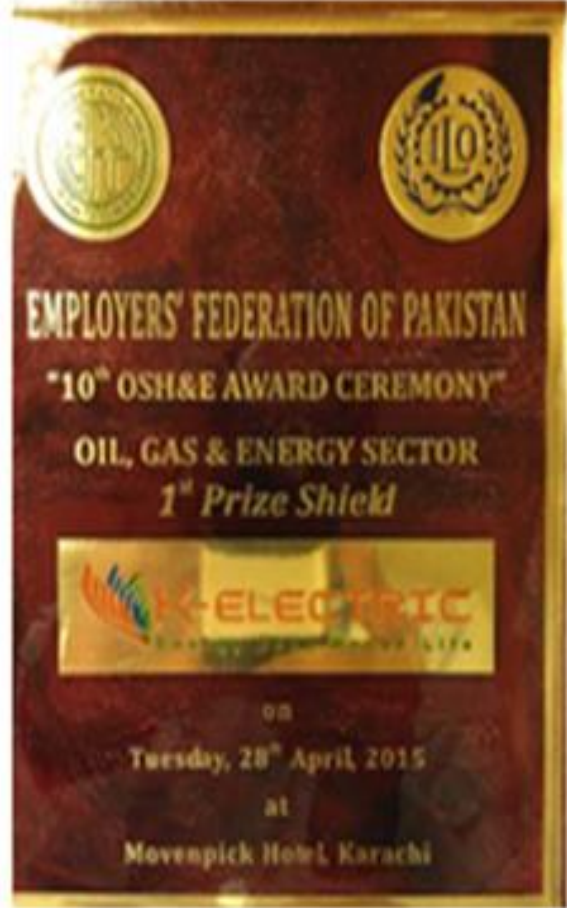


# Now

# National Awards



ACCA – WWF Environmental Award





# Recognition

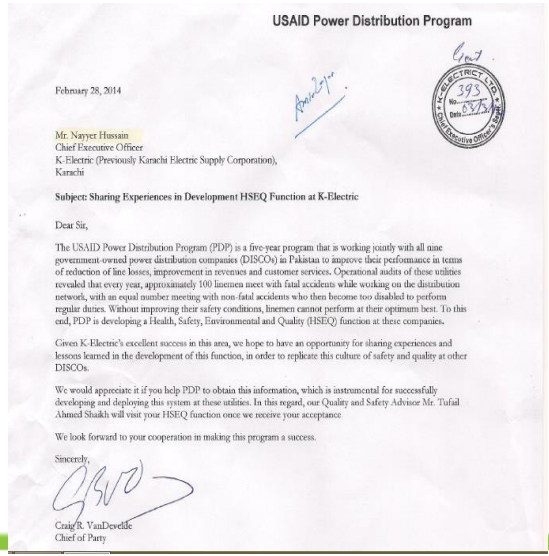
## At National Level:

- No 1 in Safety amongst power utilities (NEPRA Annual Report)
- Member National Task force;
  - Pakistan Electrical & Telecom Safety Code
  - Building code of Pakistan-Fire safety Provisions 2016
  - NEPRA Power safety Code.
  - Elevator Safety Standard of Pakistan
- Assisting Pakistan DISCOs in developing their Safety Management System.
- Developed & delivered EHS Course for undergraduate engineers- NED University.



## At International Level:

- USAID bench marked KE EHS systems for other DISCOs
- ACCA-WWF 'Best Environmental Report' (Runner up) Award in 2015.
- KE partnered with GEF & UNDP in "Comprehensive Reduction and Elimination of Persistent Organic Pollutants (POPs) In Pakistan".







**Thank You**

**Let's build a Safe Pakistan**



# OHS Incidents Statistics – Pakistan (2014-15)



Population 198Million



Incident 2.3Million



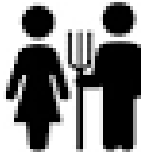
Construction  
8.9%



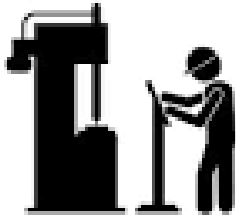
Mining  
6.8%



Transport  
5.6%



Agriculture  
4.5%



Mfg  
4.1%

Source: International Labour Standards Unit  
Ministry of Overseas Pakistanis & Human Resource Development

# HSE Statistics – Pakistan (2014-15)

Sector	Sectoral Share in Employment (%)	Sectoral Share in GDP (%)	Incidence of Occupational Injuries / Diseases by Sector (%)	Risk Ratio
<b>Construction</b>	<b>7.31</b>	<b>2.44</b>	<b>8.90</b>	<b>1.2</b>
<b>Mining &amp; Quarrying</b>	<b>0.16</b>	<b>2.92</b>	<b>6.84</b>	<b>42.8</b>
<b>Transport, Storage &amp; ICT</b>	<b>5.40</b>	<b>13.36</b>	<b>5.60</b>	<b>1.0</b>
Agriculture / Forestry & Fishing	42.28	20.88	4.54	0.1
Manufacturing	15.34	13.27	4.15	0.3
Electricity & Gas	0.40	1.67	3.14	7.9
Wholesale & Trade	14.64	18.26	1.93	0.1
Others	13.89	24.06	1.31	0.1
Financial & Insurance	0.59	3.14	0.64	1.1