FEDERAL BOARD OF REVENUE
GOVERNMENT OF PAKISTAN

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN
PAKISTAN RAISES REVENUE PROJECT (PRRP)

September 2022

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Abbreviations

AEES	Automated Entry Exit System
AEOI	Auto Exchange of Information
BEPS	Base Erosion & Profit Shifting
BI	Business Intelligence
CPDI	The Network for Consumer Protection and Centre for Peace and Development Initiatives
CPU	Central Processing Unit
dB	Decibels
DDoS	Distributed Denial of Service
DoS	Denial of Service
EHS	Environmental Health and Safety
EHSG	Environmental Health and Safety Guidelines
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
EWMP	Electronic Waste Management Plan
FBR	Federal Board of Revenue
FY	Financial Year
GD	Goods Declaration
GDP	Gross Domestic Productivity
GIIP	Good International Industrial Practices
GRM	Grievance Redress Mechanism
GST	General Sales Tax
H/Q	Headquarter
HRCP	Human Right Commission of Pakistan
HSE	Health, Safety and Environment
ICT	Information and Communication Technology
IDA	International Development Association
IEE	Initial Environmental Examination
IFC	International Finance Corporation
IPF	Investment Project Financing
IRIS	Inland Revenue Information System
IT	Information Technology
KICT	Karachi International Container Terminal
KPEPA	Khyber Pakhtunkhwa Environmental Protection Agency
KPK	Khyber Pakhtunkhwa
L&FS	Life and Fire Safety
MCC	Model Customs Collectorate
NADRA	National Database and Registration Authority
NCRDP	Disabled persons by National Council for the Rehabilitation of Disabled Persons

NCSW	National Commission on the Status of Women
NEP	National Environment Policy
NEQS	National Environmental Quality Standards
NG	Next Generation
NII	Non-Intrusive Inspection
OECD	Organization for Economic Co-operation and Development
OHS	Occupational Health and Safety
Pak-EPA	Pakistan Environmental Protection Agency
PCA	Post Clearance Audit
PCN	Project Concept Note
PCS	Provincial Revenue Services
PDHS	Pakistan Demographic Health Survey
PEPA	Pakistan Environmental Protection Act
PEPC	Pakistan Environmental Protection Council
PICT	Pakistan International Container Terminal
PM	Particulate Matter
PMU	Project Management Unit
PNRA	Pakistan Nuclear Regulatory Authority
PPC	Pakistan Penal Code
PPE	Personal Protective Equipment
PRAL	Pakistan Revenue Automation (Pvt.) Limited
PRRP	Pakistan Raises Revenue Project
RMS	Risk Management System
RTO	Regional Tax Office
SAN	Storage Area Network
SAPT	South Asia Pakistan Terminals
SDPI	Sustainable Development Policy Institute
SEP	Stakeholder Engagement Plan
SOP	Standard Operating Procedure
STRIVE	Sales Tax Real-time Invoice Verification
TA	Technical Assistance
TARP	Tax Administration Reforms Project
TB	Terra Byte
TIWB	Tax Inspectors without Borders
UNFCCC	United Nations Framework Convention on Climate Change
VAW	Violence Against Women
VPN	Virtual Private Network
VTL	Virtual Tape Library
WB	The World Bank
WBG	The World Bank Group
WeBOC	Web Based One Custom

Executive Summary

Federal Board of Revenue (FBR) is undertaking Pakistan Raises Revenue Project (PRRP) to upgrade FBR's Information and Communication Technology systems across Pakistan. The project objective is to contribute to a sustainable increase in domestic revenue by broadening the tax base and facilitating compliance. Majority of existing equipment at FBR offices is decades old and is prone to failure, thus, prompting the need to replace existing equipment before any system break could occur resulting in discontinuation of services to tax-payers. This is a five years project. The project does not involve major civil works, land acquisition, and displacement, or operations in protected areas or in areas inhabited by indigenous people. The project's classification for social risks is moderate owing to the risks of exclusion and labor related risks. Environmental risks are classified as Moderate related to the risks associated with e-waste management. Consequently, the overall environmental and social risks classification of the project is Moderate.

PRRP is subdivided into two components. Component 1 includes the simplification of the tax administration framework to make procedures, including appeals and penalties, more transparent and intelligible to taxpayers and tax administration staff alike. Component 1 also focuses on implementation of risk-based inspections and post-clearance audit (PCA) in Customs, expansion of e-services for taxpayers and traders and institutional development of FBR for efficiency and accountability. Component 2 of PRRP targets replacement of outdated Information and Computer Technology (ICT) equipment from FBR offices across Pakistan. The intervention includes upgrading of high-capacity data warehouse to support big data analysis and integration of databases along with the replacement of equipment that has reached its useful life in the FBR's data centers. The ICT equipment to be replaced and provided through PRRP will include computers, printers, copiers, scanners as well as networking components such as network switches, routers and servers. Component 2 also has the provision of vehicle/container scanners under Pakistan Customs Automated Entry-Exit System (AEES) at ports.

Following the World Bank ESSs and Environmental and Social Commitment Plan (ESCP) as well as national and provincial laws and Good International Industrial Practices (GIIP), Environmental Assessment study of PRRP has been conducted to identify the environmental and social impacts of the project and to develop an Environmental and Social Management Plan (ESMP) containing mitigation measures following the principles of mitigation hierarchy for the identified impacts.

Scope of PRRP activities will be confined to existing office buildings without disturbing natural habitats i.e., no new land acquisition and no new construction will be involved in PRRP. Therefore, the area of influence of this project is limited to the existing offices of FBR. Environmental conditions in FBR offices have been studied along with environmental baselines while keeping in view the PRRP's influence on such parameters.

Methodology adopted for the Environmental and Social Management Plan (ESMP) study was based on data collection and desk review during which secondary background data and information on climate, topography, geology and soils, natural resources, waste management, and socio-economic data, was obtained from published and unpublished sources. Primary data was collected during Stakeholder Consultations on standard practices/procedures they apply, views, concerns,

suggestions, etc. Site visits were conducted to address important gaps in the existing data and to collect up-to-date information on topics and areas where significant negative impacts are expected, specifically, with reference to E-waste management, workers' issues and safety issues. Stakeholder identification was carried out in line with the Stakeholder Engagement Plan of PRRP. Stakeholders have been consulted to assess the potential environmental and social impacts of the project, and to incorporate the concerns of stakeholders in this ESMP. The data collected from the field was analyzed and the possible environmental impacts were highlighted. The ESMP report was compiled based on the above stated data collected via field visits, stakeholder consultation and expert's evaluation. A review of legal and institutional framework in Pakistan was conducted to identify any legal requirements from PRRP with particular reference to E-waste management, protection against radiation from X-ray based container scanners and other environmental responsibilities. ESMP methodology also included a review of project related documents, identification of impacts and mitigation measures, development of Environmental and Social Management Plan and development of e-waste management plan, development of guidelines/standard operating procedures (SOP) for protection against radiation and measures to prevent entry of rodents into offices.

The ESMP of PRRP is subdivided into eight sections. Section 1 provides rationale of the ESMP along with highlighting the applicable WB ESS to the PRRP. Accordingly, the applicable ESS are ESS1 Assessment and Management of Environmental and Social Risks and Impacts, ESS2 Labor and Working Conditions, ESS3 Resource Efficiency and Pollution Prevention and Management, and ESS10 Stakeholder Engagement and Information Disclosure. Component 2 i.e., IPF component of PRRP targets replacement of outdated ICT equipment from FBR offices across Pakistan. The IPF component will cost US$ 80 million and will be completed by June 2024. Henceforth, this ESMP has been developed to address the associated environmental risks associated with procurement, installation and dismantling of ICT equipment.

Section 2 discusses the legal framework applicable to PRRP as well as the World Bank ESSs that the project has to comply with. Environmental protection agencies at federal and provincial levels have informed that e-waste management legislation is still in development phase, therefore, currently no such rules exist that govern the e-waste management and disposal in Pakistan. Further the review of Pakistan environmental protection act 1997 and provincial environmental protection acts indicated that the project did not fall in any category of the schedules attached with these acts. No environmental approval will be required from the provincial EPAs and from federal EPA for PRRP. The regulations of Pakistan Nuclear Regulatory Authority concerning licensing and operation of x-ray-based vehicle/container scanners will apply to the project activity related to provision of x-ray-based scanners. There are other rules and regulations on occupational health and safety and various social safety issues that will apply to this project such as Factories Act 1934, North-West Frontier Province Factories Rules 1975, West Pakistan Hazardous Occupations Rules 1963, Punjab Occupational Health and Safety Act 2019, and Sindh Occupational Health and Safety Act 2017. Further, in accordance with World Banks Environmental and Social Framework (ESF), four Environmental and Social Standards (ESS) are relevant to the project: ESS1 Assessment and Management of Environmental and Social Risks and Impacts, ESS2 Labor and Working Conditions, ESS3 Resource Efficiency and Pollution Prevention and Management, and ESS10 Stakeholder Engagement and Information Disclosure.

Section 3 of the ESMP illustrates the technical details about the project and its interventions. Primarily, the environmental risks envisaged under PRRP fall under IPF component. The activities of component 2 mainly target replacing ICT equipment in FBR offices, improving the software for business improvement, establishing data warehouse and business intelligence tools through equipment and software development, establishing automated entry-exit system for Customs, upgrading the network connectivity of all FBR offices and providing technical assistance for the design of frameworks for Customs Central Risk Management and Post Clearance Audit. As a result of equipment replacement, e-waste is expected to be generated. This section also identifies the estimated quantities of waste to be generated by the PRRP. It is important to note that the Federal Environmental Protection Agency (known as Pak-EPA) has drafted E-waste Management Rules 2021 which are under review and will pass through formal approval stages. Pak-EPA expects these rules to be approved by the end of 2022. Such rules will be applicable only after approval by the relevant forum. Hence, there is no specific legislation addressing e-waste in Pakistan.

Environmental as well as social baseline is described in Section 4 which is based on secondary data review, field visits and stakeholder consultations. Since PRRP activities such as dismantling and installation of IT equipment as well as installation of new x-ray-based scanners will be implemented in existing offices of FBR, these offices have all the necessary infrastructure available for PRRP activities. These target sites are located in commercial areas where public utilities and infrastructure such as access roads are available. No land acquisition and no construction are involved in this project. The IT staff at FBR offices have the capacity to dismantle IT equipment ensuring that data has been properly managed. The existing waste management practices, including occupational health and safety and environmental conditions in which the existing equipment is installed, have been studied and discussed in this section. Currently, wastes of economic value including e-waste are being auctioned and handed over to scrap dealers at sub office level. Required Personal Protective Equipment (PPE) are available in all offices. X-ray based scanning is in practice at ports in Pakistan which ensures availability of infrastructure for replacement of old scanners or installation of new scanners in addition to the existing scanners. Emergency information and safety signs are normally available in all offices providing guidance to staff in case of emergencies. A comprehensive emergency preparedness and response plan is not available that PRRP will develop during the course of implementation of activities. Discussions have been held with stakeholders to identify environmental baseline on the basis of impacts predicted. A questionnaire was designed for data collection during field visits and during meetings with stakeholders to gather the basic data about baseline. Additionally, project activities are not envisaged to affect any physical cultural resources (PCRs). The social baseline for the overall project has been discussed in this chapter which included parameters such as demographics, ethnicity, language, education, livelihood, digital landscape, gender divide, minorities, social conflicts and cyber-attacks.

Section 5 explains the stakeholder consultations completed to involve stakeholders in ESMP and PRRP activities. The stakeholders identified and contacted for discussions on PRRP interventions, included staff of FBR offices, Environmental Protection Agency, Pakistan Nuclear Regulatory Authority (PNRA), tax lawyers/consultants, individual taxpayers, small businesses, scrap dealers, e-waste handlers/disposal workers and electronic technicians. Consultations were held for

identification of impacts of PRRP, designing of mitigations and receiving the inputs on capacity needs as well as finalizing the ESMP. Besides e-waste and x-ray exposure, stakeholders have identified OHS issues and intrusion by rodents in office building causing damage to electrical as well as networking cables. Among social issues, exclusion of people with low literacy, disability issues and women are identified by the stakeholders. Besides, labor related issues have also been identified during such discussions. Based on discussions with and inputs by stakeholders, ESMP, e-waste management plan and measures to prevent rodent entry into the building have been provided as part of the ESMP. The stakeholders consulted did not express any major environmental concern for this project. The Federal Environmental Protection Agency informed that legislation on e-waste management is yet to be approved by the Government of Pakistan.

Section 6 describes the environmental and social impacts of the project. Alternative analysis of PRRP for "to-do" or "not-to-do" the project, alternative site selection and alternative technologies has been discussed in this section. Accordingly, brief qualitative description of each impact with related activity and the affected environment is presented in this section. Prediction of impacts of a proposed activity is based on available information; however, the significance of the impacts involves value judgment. The impacts have been identified during design, dismantling, installation and operational phases. Adverse impacts can be summarized as air quality, waste generation, radiation exposure, OHS, Covid-19, social exclusion, social conflict, gender issues. Positive impacts of PRRP include reduced use of paper, reduction in energy consumption, use of recyclable equipment thereby minimizing the e-waste generation. Mitigation measures are also suggested for each category of impacts. E-waste is expected to be generated during the replacement of redundant ICT equipment after procurement of new equipment under this project activities and increased digitization of systems. Downstream generation of e-waste is also expected during the end-of-life equipment disposal. E-waste management plan (Annex 2) has been developed keeping in view the existing waste management practices at FBR, scrapyards and recycling units. Mitigation measures for radiation exposure have been provided in the ESMP including coordination between Customs Authorities and PNRA for development of SOPs.

Section 7 provides the detailed Environmental and Social Management Plan (ESMP). ESMP is based on the identified impacts and mitigation measures in section 6. The impacts and mitigation measures included occupational health & safety, e-waste management, radiation protection, Covid-19, ambient air, energy consumption, social exclusion, social conflicts, gender divide, data security, labor working conditions, community health and safety, and intrusion by rodents in to office buildings, have been discussed in this section. It gives details about the institutional arrangements to implement the mitigation measures while identifying the various responsible parties and their responsibilities. Monitoring and reporting requirements are included in this section according to which quarterly reports will be submitted to WB by the Environmental and Social Management Specialists at PMU elaborating the status of implementation of mitigation measures. These reports will be disclosed at FBR website. Further, the section elaborates the capacity building needs of stakeholders for effectively implementing the ESMP. A capacity building plan has been provided in this section which calls for training of stakeholders on waste management, grievance redress mechanism, social impacts management and safety issues. Implementation arrangements include availability of Environmental Management Specialist and

Social Management Specialist at PMU level and nomination of environmental and social focal persons in each target office.

Lastly, section 8 provides insights regarding the Grievance Redress Mechanism (GRM) designed for this project, detailing the complaint registration process, procedure for grievance redressal and tiers to address grievances properly. The purpose of GRM is to facilitate amicable and timely resolution of complaints and grievances of the stakeholders including project affected persons (PAPs) (male and female) regarding all environmental and social issues. The core responsibility of developing and managing GRM will rest with the PRRP PMU in Islamabad. The PRRP target offices will serve as the Secretariat for the Grievance Redress Committee that will be responsible for providing oversight of the entire GRM process at local level and monitoring of the complaints management system. Project affected people may register complaints through email, phone calls or in written form. Grievances will be resolved at three tiers i.e., at local FBR office level, or at PMU level and at any court of law if not resolved at previous two levels.

The estimated cost for implementing the mitigation measures as per this ESMP such as trainings, provision of PPEs, waste management equipment and third-party environmental and social validation is PKR is 22.039 million out of which PKR 10.140 million have been proposed for trainings. After approval of ESMP by World Bank, the Program Director, PRRP will approve the budget for each activity.

خلاصہ

فیڈرل بورڈ آف ریونیو (ایف بی آر) نے پورے پاکستان میں ایف بی آر کے انفارمیشن اینڈ کمیونیکیشن ٹیکنالوجی کے نظام کو اپ گریڈ کرنے کے لیے پاکستان ریز زریونیو پروجیکٹ (PRRP) شروع کیا ہے۔ منصوبے کا مقصد ٹیکس کی بنیاد کو وسعت دے کر اور تعمیل کو آسان بنا کر ملکی آمدنی میں پائیدار اضافے میں اپنا حصہ ڈالنا ہے۔ ایف بی آر کے دفاتر میں زیادہ تر موجودہ آلات کئی دہائیوں پرانے ہیں اور مشکلات کا شکار ہیں، اسلئے سسٹم میں کسی بڑی خرابی کے رونماہونے سے پہلے موجودہ آلات کو تبدیل کرنے کی ضرورت پر زور دیا جاتا ہے جس کے نتیجے میں ٹیکس دہندگان کے لیے خدمات بند ہوسکتی ہیں۔ یہ پانچ سال کا منصوبہ ہے۔ منصوبے کی دستاویزات اور ماحولیاتی اور سماجی جائزہ کے خلاصے کے مطابق، ماحولیاتی اور سماجی خطرات کے حوالے سے پروجیکٹ کی درجہ بندی کی درمیانے درجے میں درج کی گئی ہے۔

PRRP کو دو اجزاء میں تقسیم کیا گیا ہے۔ جزو 1 میں شامل ہے ٹیکس ایڈمنسٹریشن فریم ورک کو آسان بنانا، جس میں اپیل اور جرمانے شامل ہیں، ٹیکس دہندگان اور ٹیکس ایڈمنسٹریشن کے عملے کو یکساں طور پر زیادہ شفاف اور قابل فہم بنانا۔ جزو 1 کسٹمز میں رسک پر مبنی انسپکشنز اور پوسٹ کلیئرنس آڈٹ (PCA) کے نفاذ، ٹیکس دہندگان اور تاجروں کے لیے ای سروسز کی توسیع اور کارکردگی اور احتساب کے لیے FBR کی ترقی پر بھی توجہ مرکوز کرتا ہے۔ PRRP کا جزو 2 پاکستان بھر میں ایف بی آر کے دفاتر سے فرسودہ اور ناکارہ انفارمیشن اینڈ کمپیوٹر ٹیکنالوجی (ICT) آلات کو تبدیل کرنے کا ہدف رکھتا ہے۔ اس ضمن میں بڑے ڈیٹا کے تجزیے اور ڈیٹابیس کے انضمام کے لیے اعلیٰ صلاحیت والے ڈیٹابیس کی اپ گریڈنگ کے ساتھ ساتھ ایسے آلات کی تبدیلی بھی شامل ہے جو ایف بی آر کے ڈیٹا سینٹرز میں اپنی کارآمد زندگی تک پہنچ چکے ہیں۔ PRRP کے ذریعے تبدیل کیے جانے والے اور فراہم کیے جانے والے ICT آلات میں کمپیوٹر، پرنٹرز، کاپیئرز، سکینرز کے ساتھ ساتھ نیٹ ورکنگ کے آلات جیسے نیٹ ورک سوئچز، راوٹرز اور سرورز شامل ہوں گے۔ جزو 2 میں بندر گاہوں پر پاکستان کسٹمز آٹومیٹڈ انٹری سسٹم (AEES) کے تحت گاڑی / کنٹینر کیلئے اسکینرز کی فراہمی بھی شامل ہے۔

عالمی بینک کے ESSs اور PRRP کے ماحولیاتی اور سماجی عزم کے منصوبے (ESCP) کے ساتھ ساتھ قومی اور صوبائی قوانین اور تسلیم شدہ و مروجہ بین الاقوامی صنعتی امور (GIIP) کے بعد، PRRP کا ماحولیاتی اثرات کا مطالعہ کیا گیا ہے تاکہ اس منصوبے کے ماحولیاتی اور سماجی اثرات کی نشاندہی کی جاسکے۔ جائزے کے نتیجے میں شناخت شدہ منفی اثرات کے لیے تخفیف کے درجہ بندی کے اصولوں پر عمل کرتے ہوئے تخفیف کے اقدامات پر مشتمل ایک ماحولیاتی اور سماجی انتظامی منصوبہ (ESMP) تیار کیا گیا ہے۔

PRRP سرگرمیوں کا دائرہ کار قدرتی ماحول پر اثر انداز از ہوئے بغیر موجودہ دفتری عمارتوں تک محدود رہے گا، یعنی کوئی نئی زمین حاصل نہیں کی جائے گی اور نہ ہی کوئی نئی تعمیر PRRP میں شامل ہوگی۔ اس لیے اس منصوبے کے اثرات کا دائرہ ایف بی آر کے موجودہ دفاتر تک محدود رہے۔ ایسے عوامل پر PRRP کے اثرات کو مد نظر رکھتے ہوئے ایف بی آر کے دفاتر میں ماحولیاتی حالات کا ماحولیاتی بنیادی خطوط کے حوالے سے مطالعہ کیا گیا ہے۔

ماحولیاتی اور سماجی انتظامی منصوبہ یعنی انوائر مینٹل اینڈ سوشل مینجمنٹ پلان (ESMP) کے مطالعہ کے لیے اپنایا گیا طریقہ کار ڈیٹا اکٹھا کرنے اور جائزے پر مبنی تھا جس کے دوران ماحولیاتی پس منظر کے اعداد و شمار اور آب و ہوا، ارضیات اور زمین، قدرتی وسائل، فضلہ کا انتظام، اور سماجی و اقتصادی اعداد و شمار، شائع شدہ اور غیر مطبوعہ ذرائع سے حاصل کیا گیا تھا۔ بنیادی ڈیٹا اسٹیک ہولڈرز کی مشاورت کے دوران ان کے لگوئے گئے معیاری طریقوں / طریقہ کاروں، آراء، خدشات، تجاویز

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وغیرہ پر اٹھا کیا گیا تھا۔ موجودہ ڈیٹا میں اہم خلا کو دور کرنے اور ان موضوعات اور شعبوں کے بارے میں تازہ ترین معلومات اکٹھا کرنے کے لیے چند دفاتر کا دورہ کیا گیا۔ متوقع منفی اثرات میں ای ویسٹ مینجمنٹ، ورکرز کے مسائل اور ذاتی حفاظتی مسائل اہم ہیں۔ اسٹیک ہولڈر کی شناخت PRRP کے اسٹیک ہولڈر انگیجمنٹ پلان کے مطابق کی گئی تھی۔ منصوبے کے ممکنہ ماحولیاتی اور سماجی اثرات کا جائزہ لینے اور اس ESMP میں اسٹیک ہولڈرز کے خدشات کو شامل کرنے کے لیے اسٹیک ہولڈرز سے مشورہ کیا گیا ہے۔ دفاتر کی سطح پر جمع کیے گئے ڈیٹا کا تجزیہ کیا گیا اور ممکنہ ماحولیاتی اثرات پر روشنی ڈالی گئی۔ ای ایم پی رپورٹ دفاتر کے دوروں، اسٹیک ہولڈرز کی مشاورت اور ماہرانہ تشخیص کے ذریعے جمع کیے گئے اور پر بیان کردہ ڈیٹا کی بنیاد پر مرتب کی گئی ہے۔ پاکستان میں قانونی اور ادارہ جاتی نظام کا جائزہ لیا گیا تاکہ PRRP کی طرف سے تمام قانونی تقاضوں کی نشاندہی کی جاسکے جس میں خاص طور پر ای ویسٹ مینجمنٹ، ایکسرے پر مبنی کنٹینر سکینرز سے نکلنے والی تابکاری سے تحفظ اور دیگر ماحولیاتی ذمہ داریاں شامل ہیں۔ ESMP بنانے کے طریقہ کار میں پروجیکٹ سے متعلق دستاویزات کا جائزہ، اثرات کی نشاندہی اور تخفیف کے اقدامات، ماحولیاتی اور سماجی مینجمنٹ پلان کی تدوین اور ای ویسٹ مینجمنٹ پلان بنانا، اور دفاتر میں چوہوں کی آمد کو روکنے کے اقدامات کی سفارش کرنا شامل تھا۔

PRRP کے ESMP کو آٹھ حصوں میں تقسیم کیا گیا ہے۔ حصہ PRRP 1 پر قابل اطلاق عالمی بینک کے ESS کو اجاگر کرنے کے ساتھ ESMP کی اہمیت کی دلیل فراہم کرتا ہے۔ اس کے مطابق، قابل اطلاق ESS میں شامل ہیں: ESS1 ماحولیاتی اور سماجی خطرات اور اثرات کا جائزہ اور انتظام، ESS2 مزدور اور کام کے حالات، ESS3 قدرتی وسائل کی کارکردگی اور آلودگی کی روک تھام اور انتظام، اور ESS10 اسٹیک ہولڈر کی شمولیت اور معلومات کا تبادلہ۔ جزو 2 یعنی PRRP کا IPF جزو پورے پاکستان میں ایف بی آر کے دفاتر سے پرانے آئی سی ٹی آلات کی تبدیلی کا ہدف رکھتا ہے۔ آئی پی ایف کے جزو پر 80 ملین امریکی ڈالر لاگت آئے گی اور یہ جون 2024 تک مکمل ہو جائے گا۔ یہ ESMP آئی سی ٹی آلات کی خریداری، تنصیب اور استعمال سے منسلک ماحولیاتی خطرات سے نمٹنے کے لیے تیار کیا گیا ہے۔

حصہ PRRP 2 کے ساتھ ساتھ ورلڈ بینک کے لاگو ہونے والے ESSs اور قانونی فریم ورک پر بحث فراہم کرتا ہے جس کی پر اجیکٹ کو تعمیل کرنی ہوتی ہے۔ وفاقی اور صوبائی سطحوں پر ماحولیاتی تحفظ کے اداروں نے مطلع کیا ہے کہ ای ویسٹ مینجمنٹ قانون سازی ابھی بننے کے مرحلے میں ہے، اس لیے فی الحال پاکستان میں ای ویسٹ مینجمنٹ اور ٹھکانے لگانے کے لیے ایسے کوئی اصول موجود نہیں ہیں۔ مزید یہ کہ پاکستان ماحولیاتی تحفظ ایکٹ 1997 اور صوبائی ماحولیاتی تحفظ کے ایکٹ کے جائزے سے ظاہر ہوتا ہے کہ یہ منصوبہ ان ایکٹ کے ساتھ منسلک شیڈول کے کسی زمرے میں نہیں آتا۔ RRPP کے لیے صوبائی EPAs اور وفاقی EPA سے ماحولیاتی منظوری کی ضرورت نہیں ہوگی۔ ایکسرے پر مبنی گاڑی/کنٹینر سکینرز کے لائسنس اور استعمال سے متعلق پاکستان نیوکلیئر ریگولیٹری اتھارٹی کے ضوابط کا اطلاق ایکسرے پر مبنی اسکینرز کی فراہمی سے متعلق پروجیکٹ کی سرگرمی پر ہوگا۔ پاکستان میں پیشہ ورانہ صحت اور حفاظت اور سماجی تحفظ کے مختلف مسائل سے متعلق دیگر قواعد و ضوابط ہیں جو اس پروجیکٹ پر لاگو ہوں گے جیسے فیکٹریز ایکٹ 1934، شمال مغربی سرحدی صوبہ فیکٹریز رولز 1975، ویسٹ پاکستان ہیزرڈوس آکو پیشنز رولز 1963، پنجاب آکو پیشنل ہیلتھ اینڈ سیفٹی ایکٹ 2019، اور سندھ آکو پیشنل ہیلتھ اینڈ سیفٹی ایکٹ 2017۔ مزید برآں، عالمی بینک کے ماحولیاتی اور سماجی فریم ورک (ESF) کے مطابق، چار ماحولیاتی اور سماجی معیارات (ESS) منصوبے سے متعلق ہیں: ESS1 ماحولیاتی اور سماجی خطرات اور اثرات کی تشخیص اور انتظام، ESS2 لیبر اور کام کے حالات، ESS3 وسائل کی کارکردگی اور آلودگی کی روک تھام اور انتظام، اور ESS10 اسٹیک ہولڈر کی شمولیت اور معلومات کا تبادلہ۔

ESMP کا حصہ 3 پروجیکٹ اور اس کے اثرات کے بارے میں تکنیکی تفصیلات کی وضاحت کرتا ہے۔ بنیادی طور پر، RRPP کے تحت تصور کیے گئے ماحولیاتی خطرات IPF جزو کے تحت آتے ہیں۔ جزو 2 کی سرگرمیاں بنیادی طور پر ایف بی آر کے دفاتر میں آئی سی ٹی آلات کو تبدیل کرنا، کاروبار کی بہتری کے لیے سافٹ ویئر کو بہتر بنانا، آلات اور سافٹ ویئر کی ترقی کے ذریعے ڈیٹا ویئرہاؤس اور بزنس انٹیلی جنس ٹولز کا قیام، کسٹمز کے لیے خودکار انٹری ایگزٹ سسٹم کا قیام، تمام ایف بی آر کے نیٹ ورک رابطوں کو ترقی دینا ہے۔ دفاتر اور کسٹمز سینٹرل رسک مینجمنٹ اور پوسٹ کلیئرنس آڈٹ کے لیے فریم ورک کے ڈیزائن کے لیے تکنیکی مدد فراہم کرنا۔ آلات کی تبدیلی کے نتیجے میں، برقی فضلہ پیدا ہونے کی توقع ہے۔ ESMP کا یہ حصہ PRRP کے ذریعے پیدا ہونے والے کچرے کی مقدار کی بھی نشاندہی کرتا ہے۔ یہ نوٹ کرنا ضروری ہے کہ وفاقی ماحولیاتی تحفظ ایجنسی (Pak-EPA) نے ای ویسٹ مینجمنٹ رولز 2021 کا مسودہ تیار کیا ہے جو زیر غور ہے اور باقاعدہ منظوری کے مراحل سے گزرے گا۔ وفاقی ماحولیاتی تحفظ ایجنسی کو توقع ہے کہ یہ قواعد 2022 کے آخر تک منظور ہو جائیں گے۔ ایسے قوانین کا اطلاق متعلقہ فورم سے منظوری کے بعد ہی ہو گا۔ اس لیے پاکستان میں برقی فضلے سے نمٹنے کے لیے کوئی خاص قانون سازی نہیں ہے۔

ماحولیاتی اور سماجی بنیادی حالات کو حصہ 4 میں بیان کیا گیا ہے جو ثانوی اعداد و شمار کے جائزے، دفاتر کے دوروں اور اسٹیک ہولڈرز کی مشاورت پر مبنی ہے۔ چونکہ PRRP سرگرمیاں جیسے کہ IT آلات کو اتارنے اور نصب کرنے کے ساتھ ساتھ نئے ایکسرے سکینرز کی تنصیب FBR کے موجودہ دفاتر میں کی جائے گی، ان دفاتر میں PRRP کی سرگرمیوں کے لیے تمام ضروری بنیادی ڈھانچہ دستیاب ہے۔ یہ مجوزہ جگہیں تجارتی علاقوں میں واقع ہیں جہاں عوامی سہولیات اور بنیادی ڈھانچہ جیسے رسائی کیلئے سڑکیں دستیاب ہیں۔ اس پراجیکٹ میں کوئی زمین کا حصول اور کوئی تعمیر شامل نہیں ہے۔ اس بات کو یقینی بناتے ہوئے کہ ڈیٹا کا صحیح طریقے سے انتظام کیا گیا ہے، ایف بی آر کے دفاتر کے آئی ٹی عملے کے پاس آئی ٹی آلات کو کھولنے کی صلاحیت موجود ہے۔ کچرے کے انتظام کے موجودہ طریقے، بشمول پیشہ ورانہ صحت اور حفاظت اور ماحولیاتی حالات جن میں موجودہ آلات نصب ہیں پر اس حصہ میں مطالعہ اور بحث کی گئی ہے۔ فی الحال، ای ویسٹ سمیت قیمتی فضلے کو نیلام کیا جا رہا ہے اور ذیلی دفتری سطح پر سکریپ ڈیلرز کے حوالے کیا جا رہا ہے۔ ضروری ذاتی حفاظتی سامان (PPE) تمام دفاتر میں دستیاب ہیں۔ ایکسرے پر مبنی سکیننگ پاکستان کی بندرگاہوں پر استعمال میں ہے جو موجودہ سکینرز کے علاوہ پرانے سکینرز کی تبدیلی یا نئے سکینرز کی تنصیب کے لیے بنیادی ڈھانچے کی دستیابی کو یقینی بناتی ہے۔ ہنگامی معلومات اور حفاظتی نشانات عام طور پر تمام دفاتر میں دستیاب ہوتے ہیں جو ہنگامی حالات میں عملے کو رہنمائی فراہم کرتے ہیں۔ ایک جامع ہنگامی تیاری کا منصوبہ دستیاب نہیں ہے جسے PRRP اپنی سرگرمیوں کے نفاذ کے دوران تیار کرے گا۔ پیش گوئی کیے گئے اثرات کی بنیاد پر ماحولیاتی بنیادوں کی نشاندہی کرنے کے لیے اسٹیک ہولڈرز کے ساتھ بات چیت کی گئی ہے۔ موجودہ صورتِ حال کے بارے میں بنیادی ڈیٹا اکٹھا کرنے کے لیے دفتری دوروں کے دوران اور اسٹیک ہولڈرز کے ساتھ ملاقاتوں کے دوران ڈیٹا اکٹھا کرنے کے لیے ایک سوالنامہ تیار کیا گیا تھا۔ مزید برآں، پروجیکٹ کی سرگرمیاں کسی بھی ثقافتی وسائل کو متاثر نہیں کریں گی۔ اس باب میں مجموعی منصوبے کے لیے سماجی بنیاد پر بات کی گئی ہے جس میں آبادیاتی، نسلی، زبان، تعلیم، معاش، ڈیجیٹل بنیاد، صنفی تقسیم، اقلیتیں، سماجی تنازعات اور سائبر حملے جیسے عوامل شامل ہیں۔

حصہ ESMP 5 اور PRRP سرگرمیوں میں اسٹیک ہولڈرز کو شامل کرنے کے لیے مکمل ہونے والی اسٹیک ہولڈرز کی مشاورت کی وضاحت کرتا ہے۔ PRRP کی سرگرمیوں پر بات چیت کے لیے جن اسٹیک ہولڈرز کی نشاندہی کی گئی اور ان سے رابطہ کیا گیا، ان میں ایف بی آر کے دفاتر، انوائرنمنٹل پروٹیکشن ایجنسی، پاکستان نیوکلیئر ریگولیٹری اتھارٹی (PNRA)، ٹیکس وکلاء/کنسلٹنٹس، انفرادی ٹیکس دہندگان، چھوٹے کاروبار، سکریپ ڈیلر، ای ویسٹ اٹھانے والے/ تلف کرنے والے ورکرز اور الیکٹرانک ٹیکنیشن شامل تھے۔ PRRP کے اثرات کی نشاندہی، تخفیفی اقدامات کی ڈیزائننگ اور صلاحیت کی ضروریات پر معلومات

حاصل کرنے کے ساتھ ساتھ ESMP کو حتمی شکل دینے کے لیے مشاورت کی گئی۔ ای ویسٹ اور ایکس رے کے اثرات کے علاوہ، اسٹیک ہولڈرز نے زاتی صحت و حفاظت کے مسائل اور دفتر کی عمارت میں چوہوں کی آمد ورفت کی نشاندہی کی ہے جو برقی اور نیٹ ورکنگ کی تاروں کو نقصان پہنچاتے ہیں۔ سماجی مسائل میں، کم خواندگی والے لوگوں کو منصوبے سے الگ کرنا، معذوری کے مسائل اور خواتین کی نشاندہی شامل ہیں۔ اس کے علاوہ اس طرح کی بات چیت کے دوران مزدوروں سے متعلق مسائل کی بھی نشاندہی کی گئی ہے۔ اسٹیک ہولڈرز کے ساتھ بات چیت اور ان کی رائے کی بنیاد پر، ESMP، ای ویسٹ مینجمنٹ پلان اور عمارت میں چوہوں کے داخلے کو روکنے کے اقدامات ESMP کے حصے کے طور پر فراہم کیے گئے ہیں۔ اسٹیک ہولڈرز جن سے مشاورت کی گئی انہوں نے اس پراجیکٹ کے لیے کسی بڑی ماحولیاتی تشویش کا اظہار نہیں کیا۔ وفاقی ماحولیاتی ایجنسی نے بتایا کہ ای ویسٹ مینجمنٹ سے متعلق قانون سازی کی حکومت پاکستان سے منظوری ہونا باقی ہے۔

حصہ 6 منصوبے کے ماحولیاتی اور سماجی اثرات کو بیان کرتا ہے۔ اس حصہ میں منصوبے کو "کرنے" یا "نہ کرنے" کے لیے PRRP کا متبادل تجزیہ، متبادل جگہوں کے انتخاب اور متبادل ٹیکنالوجیز پر تبادلہ خیال کیا گیا ہے۔ اس کے مطابق، اس سیکشن میں متعلقہ سرگرمی اور متاثرہ ماحول کے ساتھ ہر اثر کی مختصر معیاری وضاحت پیش کی گئی ہے۔ مجوزہ سرگرمی کے اثرات کی پیش گوئی دستیاب معلومات پر مبنی ہے۔ تاہم اثرات کی اہمیت میں ماہرین کی رائے اور فیصلہ شامل ہے۔ ڈیزائن، اتارنے، تنصیب اور استعمال کے مراحل کے دوران اثرات کی نشاندہی کی گئی ہے۔ منفی اثرات کا خلاصہ ہوا کے معیار، فضلہ کی پیداوار، تابکاری، زاتی حفاظت، کورونا، سماجی طور پر دوری، سماجی تنازعات، صنفی مسائل کے طور پر کیا جاسکتا ہے۔ PRRP کے مثبت اثرات میں کاغذ کا کم استعمال، توانائی کی کھپت میں کمی، آلات کا دوبارہ استعمال شامل ہے، اس طرح ای ویسٹ کی پیداوار کو کم سے کم کرنا ممکن ہے۔ منفی اثرات کے ازالے کے لیے تخفیف کے اقدامات بھی تجویز کیے گئے ہیں۔ اس پروجیکٹ کی سرگرمیوں کے تحت نئے آلات کی خریداری اور سسٹمز کی ڈیجیٹائزیشن میں اضافے کے بعد فالتو ICT آلات کی تبدیلی کے دوران ای ویسٹ پیدا ہونے کی توقع ہے۔ ای ویسٹ مینجمنٹ پلان (ضمیمہ 2) ایف بی آر، اسکریپ یارڈز اور ری سائیکلنگ یونٹس میں ویسٹ مینجمنٹ کے موجودہ طریقوں کو مد نظر رکھتے ہوئے تیار کیا گیا ہے۔ ESMP میں تابکاری کے لیے تخفیف کے اقدامات فراہم کیے گئے ہیں جس میں SOPs کی بہتری کے لیے کسٹمز اتھارٹیز اور PNRA کے درمیان ہم آہنگی بڑھانا شامل ہے۔

حصہ 7 تفصیلی ماحولیاتی اور سماجی انتظامی منصوبہ (ESMP) فراہم کرتا ہے۔ ESMP حصہ 6 میں شناخت شدہ اثرات اور تخفیف کے اقدامات پر مبنی ہے۔ اثرات اور تخفیف کے اقدامات میں پیشہ ورانہ صحت اور حفاظت، ای ویسٹ مینجمنٹ، تابکاری کے اثرات، کورونا، دفتر میں موجود ہوا، توانائی کی کھپت، سماجی دوری، سماجی تنازعات، جنسی امتیاز شامل ہیں۔ اس کے علاوہ ڈیٹا کی حفاظت، مزدوروں کے کام کے حالات، قربی آبادی کی صحت اور حفاظت، اور دفتری عمارتوں میں چوہوں کی مداخلت، اس حصہ میں زیر بحث آئے ہیں۔ یہ حصہ مختلف ذمہ دار لوگوں اور ان کی ذمہ داریوں کی نشاندہی کرتے ہوئے تخفیف کے اقدامات کو نافذ کرنے کے لیے ادارہ جاتی انتظامات کے بارے میں تفصیلات فراہم کرتا ہے۔ نگرانی اور رپورٹنگ کے تقاضے اس حصہ میں شامل ہیں جس کے مطابق PMU میں ماحولیاتی اور سماجی نظم و نسق کے ماہرین کی طرف سے عالمی بینک کو سہ ماہی رپورٹیں پیش کی جائیں گی جو تخفیف کے اقدامات کے نفاذ کی صورتحال کو واضح کرتی ہیں۔ یہ رپورٹس ایف بی آر کی ویب سائٹ پر ظاہر کی جائیں گی۔ مزید یہ کہ یہ حصہ ESMP کو مؤثر طریقے سے نافذ کرنے کے لیے اسٹیک ہولڈرز کی صلاحیت بڑھانے کی ضروریات کو واضح کرتا ہے۔ اس حصہ میں ایک تربیتی منصوبہ فراہم کیا گیا ہے جس میں اسٹیک ہولڈرز کو فضلہ کے انتظام، شکایات کے انتظام، فضلہ کے ازالے کے طریقہ کار، سماجی

اثرات کے انتظام اور حفاظتی امور پر تربیت دینے کا خاکہ پیش کیا گیا ہے۔ نفاذ کے انتظامات میں پی ایم یو کی سطح پر ماحولیاتی انتظام کے ماہر اور سماجی انتظام کے ماہر کی دستیابی اور ہر دفتر میں ماحولیاتی اور سماجی فوکل / متعلقہ افراد کی نامزدگی شامل ہے۔

آخر میں، حصہ 8 اس پروجیکٹ کے لیے بنائے گئے شکایات کے ازالے کے طریقہ کار (GRM) کے بارے میں تفصیلات فراہم کرتا ہے، جس میں شکایت کے اندراج کے عمل، شکایات کے ازالے کے طریقہ کار اور شکایات کو مناسب طریقے سے حل کرنے کے درجات کی تفصیل دی گئی ہے۔GRM کا مقصد تمام ماحولیاتی اور سماجی مسائل سے متعلق پروجیکٹ سے متاثرہ افراد (مرد اور خواتین) سمیت اسٹیک ہولڈرز کی شکایات اور شکایات کے خوشگوار اور بروقت حل کی سہولت فراہم کرنا ہے۔GRM کو لاگو کرنے اور انتظام کی بنیادی ذمہ داری اسلام آباد میں PMU کے پاس ہوگی۔PRRP کے مجوزہ دفاتر شکایات کے ازالے کی کمیٹی کے سیکرٹریٹ کے طور پر کام کریں گے جو مقامی سطح پر GRM کے پورے عمل کی نگرانی اور شکایات کے انتظام کے نظام کی نگرانی کے لیے ذمہ دار ہوں گے۔ پراجیکٹ سے متاثرہ افراد ای میل کے ذریعے، فون کالز یا تحریری شکل میں شکایات درج کروا سکتے ہیں۔ شکایات کو تین درجوں پر حل کیا جائے گا، یعنی ایف بی آر کے مقامی دفتر کی سطح پر، یا پی ایم یو کی سطح پر اور اگر سابقہ دو سطحوں پر حل نہیں کیا گیا تو کسی بھی عدالت میں۔

اس ESMP کے مطابق تخفیف کے اقدامات کو لاگو کرنے کا تخمینہ لاگت جیسے کہ تربیت، PPEs کی فراہمی، فضلہ کے انتظام کے آلات اور تیسرے فریق کے ماحولیاتی اور سماجی توثیق ، پاکستانی روپوں میں 22.039 ملین ہے جس میں سے 10.140 ملین تربیت کے لیے تجویز کیے گئے ہیں۔ ورلڈ بینک کی طرف سے ESMP کی منظوری کے بعد، پروگرام ڈائریکٹر ،PRRP ہر سرگرمی کے لیے بجٹ کی منظوری دے گا۔

1 Introduction

1.1 Project Identification and Proponent

1. Effective compliance control in modern revenue administration relies on collection and analysis of taxpayer/trader data from various sources such as provincial tax authorities, other government entities, foreign jurisdictions, and withholding agents. However, the Federal Board of Revenue (FBR) lacks both access to many of these data sources and the capacity to analyze big data to detect tax evasion. The FBR's main Information Technology (IT) systems—the Inland Revenue Information System for income tax, the Sales Tax Real-time Invoice Verification (STRIVE) system for General Sales Tax (GST), and the Web Based One Custom (WeBOC) system for Customs—have automated some business processes, such as filing of tax returns and goods declarations (GDs). However, these systems do not share data and lack important functionalities such as tracking of tax arrears or a transit module (WeBOC). The FBR therefore needs the Information and Communication Technology (ICT) infrastructure and technical skills to integrate and analyze big data with adequate data security. ICT investments in simplified and automated business processes will generate efficiency gains by enabling paperless administration, real-time communication with FBR field offices, and e-services for taxpayers.

2. The project will support implementation of the FBR's long-term transformation roadmap. The solutions offered by the project are based on the 'low rate-broad base' principle, whereby a sustainable increase in revenues is achieved by expanding the tax base and increasing compliance, rather than introducing new taxes or raising tax rates. The project therefore focuses on implementation of a simplified and strengthened tax and customs administration. Project interventions will equip the FBR with the needed ICT tools and technical skills to make effective use of taxpayer information, with big data techniques and modern risk-based tools for more efficient, targeted compliance control. The project also includes ICT tools and electronic scanning equipment for the FBR's initiatives for taxpayer and trade facilitation.

3. Federal Board of Revenue, Pakistan is aiming to upgrade FBR's Information Technology (IT) systems, including a high-capacity data warehouse to support big data analysis and integration of databases along with the replacement of end-of-life equipment of the FBR's data centers. The FBR needs to modernize its Information and Computer Technology Infrastructure to execute its reforms initiatives by utilizing modern technologies in its data centers.

1.2 Nature, Size, Location and Importance of Project

4. Federal Board of Revenue, Pakistan is committed to implement its ICT vision to become a modern, fully automated and data driven organization, having integrated systems that are not only internally connected but are connected nationwide with all the organizations (public and private) that can help identify tax frauds.

5. The project has two components, summarized as follows:

Component 1: This component targets the simplification of the tax administration framework to make procedures, including appeals and penalties, more transparent and intelligible to taxpayers and tax administration staff alike. Component 1 also focuses on implementation of risk-based inspections and post-clearance audit (PCA) in Customs, expansion of e-services for taxpayers and traders and institutional development of FBR for efficiency and accountability.

Component 2: This component targets the replacement of outdated ICT equipment from FBR offices across Pakistan. The component 2 will cost US$ 80 million and will be completed by June 2024.

6. This project is a 5-year project and is envisioned to be implemented in all provinces of Pakistan i.e., Punjab, Sindh, Balochistan and Khyber Pakhtunkhwa. The ICT equipment to be replaced and provided will include computers, printers, copiers, scanners as well as networking components such as network switches, routers and servers. A list of total number of equipment to be procured under this project is provided in table 7 in Section 3. Majority of existing equipment at FBR offices is decades old and is prone to failure at any time, therefore, necessitating the need to replace existing equipment before any incident of system break could occur resulting in discontinuation of services to tax payers.

1.3 Rationale for the Study

7. This ESMP has been prepared in accordance with the national and provincial policies, laws and regulations along with Environmental and Social Standards (ESS) of the World Bank Environmental and Social Framework (ESF). This document incorporates the relevant requirements and standards including World Bank ESHS, WHO protocols and Good International Industrial Practices (GIIP). Four Environmental and Social Standards (ESS) are relevant to the project: *ESS1 Assessment and Management of Environmental and Social Risks and Impacts, ESS2 Labor and Working Conditions, ESS3 Resource Efficiency and Pollution Prevention and Management, ESS4 Community Health and Safety and ESS10 Stakeholder Engagement and Information Disclosure*. Environmental and Social Management Plan (ESMP) of the project under ESS1 evaluates and establishes the potential risks to and impacts on the communities affected by the implementation of the e-waste management and disposal plan and has proposed mitigation measures relevant to ESS4 and the Environmental Health and Safety Guidelines. The project does not involve civil works, or operations in protected areas. *The project's classification for environmental and social risks and overall environmental and social risks classification of the project is Moderate owing to the risks associated with e-waste and OH&S issues*.

8. The ESMP identifies potential environmental and social impacts and provides a road map to the environmental and social measures needed to prevent and/or mitigate negative environmental and social effects associated with the project. Specifically, the ESMP:

   ▪ Describes the existing environmental and social conditions within the project area of influence.
   ▪ Identifies and describes the extent, duration and severity of potential impacts.
   ▪ Analyzes all significant impacts; and

▪ Formulates the mitigation actions and presents them in an Environmental and Social Management Plan (ESMP).

1.4 ESMP Limitations and Boundaries

9. PRRP will be implemented in existing FBR offices scattered all over Pakistan as well as existing ports such as seaports and airport where import, transit, and export cargo is being handled. It is important to note that PRRP activities will be confined to the existing office buildings without disturbing natural habitat i.e., no new land acquisition and no new construction involved in PRRP for installation of IT equipment except minor civil works for installation of cargo scanners especially at seaports which possibly include excavation works, foundation and construction of base.

10. Due to the nature of PRRP activities, the area of influence of this project is limited to existing offices of FBR and seaports and airports thereby entailing localized direct environmental and social impacts. In this regard, existing environmental and social conditions in FBR offices and ports have been studied along with environmental and social baseline of Pakistan while keeping in view the PRRP's influence on such parameters. A detailed discussion is provided in the baseline chapter of this ESMP.

11. Visits have been made to the 08 FBR offices in April and May 2021 due to Covid-19 situation which necessitated the deployment of travel safety. Therefore, a limited number of visits were made, and stakeholder consultations were completed using a questionnaire. A number of stakeholders were also contacted through phone calls.

1.5 Scope of ESMP

12. Environmental and social risk analysis of PRRP identified the following key issues:

   1) Occupational health and safety issues as well as waste generation during electrical works and installation of ICT equipment.
   2) Generation of e-waste and nonexistence of policy to manage and dispose of e-waste (for e.g., computers, printers etc.)
   3) Social issues such as social exclusion, conflicts, gender divide, workers' safety, labor management, data security, etc.

13. FBR conducted an environmental and social analysis of impacts and has prepared this ESMP to identify, mitigate and manage the environmental and social impacts related to the project, with a focus on replacement of IT equipment, installation of electronic system for taxpayers, installation and use of x-ray-based cargo scanners, and disposal of obsolete IT equipment.

14. Based on this exercise a generic E-Waste Management Plan (EWMP) has been prepared following consultations with environmental protection agencies for relevant national and provincial environmental laws and procedures during the preparation stage. The EWMP is

based on Good International Industrial Practices (GIIP) and will be implemented by FBR with support from e-waste disposal contractors. SOPs for protection against radiation exposure will be developed by Pakistan Customs in coordination with PNRA. FBR will also be responsible for conducting an independent third-party assessment of safe disposal of E-waste generated during the project life. Mitigation measures have been suggested for all identified negative impacts. Further, the ESMP also assessed the relevance of other ESSs with reference to project activities, specifically ESS4 on Community Health and Safety. The above assessments followed the mitigation hierarchy proposed by the ESF and considered all applicable national laws and regulations. This ESMP further narrates a robust method for environmental and social screening and customization of site-specific environmental and social management plans (ESMPs) along with EWMPs.

1.6 ESMP Methodology Applied

15. The methodology utilized for conducting an environmental and social assessment to prepare this ESMP is as follows:

1.6.1 Data Collection and Desk Review:

16. It is important to note that PRRP activities will be confined to the existing offices of the Federal Board of Revenue, the Pakistan Customs/ dry ports/ sea ports authorities and the customs clearing agents, ministry of finance in the four provinces of Pakistan; Sindh, Punjab, KPK, GB and ICT. The baseline for the project focused on the existing socio-economic parameters especially the demographics, inclusion and workplace equality and diversity, digital landscape, gender digital divide and other socio-economic aspects pulled together through both the primary and secondary data collection modalities.

17. Secondary background data and information on climate, topography, geology and soils, natural resources, waste management, and socio-economic data, was obtained from published and unpublished sources. The baseline data collected adequately describes the existing biophysical environment in the area likely to be affected by the proposed project. The project area is restricted to existing government offices and therefore, the project activity and its associated adverse impacts are also localized. Hence the baseline data focuses on the office sites to gauge the relevant E&S impacts.

- Location and Accessibility.
- Environmental settings for installed ICT equipment.
- Waste management.
- E-waste management practices.
- OHS.
- Emergency preparedness and response.
- Knowledge and capacity.
- **Physical**: geology, topography, soils, climate change and air pollution, hydrology and natural hazards.

18. Primary data on environment was collected during stakeholder consultations. Site visits were conducted to address important gaps in the existing data and to collect up-to-date information on topics and areas where significant negative impacts are expected, specifically, with reference to e-waste management and safety issues.

19. The social baseline data is also derived from secondary and published sources. Information on the key socio-economic province wise indicators (demographic, socio-economic conditions, infrastructure, land-use, employment and inclusion, digital landscape, particularly gender divide, indigenous people, religion etc.) with particular focus on tax payers and other stakeholders of the project, were collected through various published literature, previous WBG social baselines as mentioned in the project documents of other projects (cited with literature) along with provincial and federal official socio-economic reports cited with the texts are also reviewed for developing the baseline for PRRP. The FBR specific data on workplace equality, women taxpayers, digital landscape was gathered through interviewing the FBR staff (mainly the environmental and social focal person) and through FBR officially published statements accessible online/ or archives available online, especially media reports by renowned newspapers in Pakistan.

20. Other secondary information referred to includes but not limited to the following:

a. Review of project documents including the ESCP, Project Appraisal Document, PRRP Financing Agreement, Stakeholder Engagement Plan.
b. Secondary data on legal requirements of Government of Pakistan and guidelines of EPAs as well as PNRA including environmental standards and laws with particular reference to e-wastes, construction and hazardous waste and radiation protection.
c. The principal World Bank publications that contain environmental and social guidelines are listed below:

- World Bank Environmental and Social Framework including the Environmental and Social Standards (ESSs)[1].
- Environment, Health, and Safety (EHS) Guidelines prepared by International Finance Corporation and World Bank in 2007[2].
- Pollution Prevention and Abatement Handbook 1998: Towards Cleaner Production[3].
- Environmental Assessment Sourcebook, Volume I: Policies, Procedures, and Cross Sectoral Issues[4].

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[1] https://www.worldbank.org/en/projects-operations/environmental-and-social-framework
[2] https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines
[3] https://www.ifc.org/wps/wcm/connect/115011ba-26ca-4166-8cc4-a0655d355d08/PPAH.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-115011ba-26ca-4166-8cc4-a0655d355d08-jqeAFFh
[4] https://documents.worldbank.org/en/publication/documents-reports/documentdetail/223391468174870007/environmental-assessment-sourcebook-volume-1-policies-procedures-and-cross-sectoral-issues

1.6.2   Reconnaissance survey and identification of stakeholders

21. Stakeholder identification was carried out in line with Stakeholders Engagement Plan of PRRP. Stakeholders have been consulted to assess the potential environmental and social impacts of the project, and to incorporate the concerns of stakeholders in this ESMP. In order to carry out the surveys and record the discussions with stakeholders, a questionnaire was developed and used during such consultations. The questionnaire is available at Annex 7.

1.6.3   Site Visits and Consultation Meetings

22. Eight site visits were conducted to FBR offices by the Environmental Management Specialist during April and May 2021 (please refer to Annex 7 for further details). The offices visited include Tax offices in Peshawar, Multan and Abbottabad as well as Customs offices in Peshawar and Multan. The Data Centre of FBR Head office was also visited during this exercise. The baseline situation in FBR offices and areas of potential environmental significance was assessed. A review of scrapyards and scrap business in Pakistan was conducted through visits to scrapyards and discussions with owners of scrap business was done. Waste handling and recycling practices in scrapyards and by scrap dealers were studied.

23. Meetings and discussions were held with tax consultants/legal advisors in the market to assess the potential of social impacts by the PRRP activities.

24. Formal discussions were held with 12 staff in 8 offices of FBR including offices of income tax and customs, Jinnah International Airport Cargo at Karachi, South Asia Pakistan Terminals (SAPT), 6 practicing tax lawyers of Islamabad, 2 experts of Environmental Protection Agency at Islamabad, 1 expert at PNRA, 6 scrap dealers in various cities of Pakistan as well as 3 workers engaged in recycling/disposal of E-waste. Discussion with all of them were held in order to determine their perceptions of the level of impact from PRRP. Data and information obtained have been included where appropriate in the ESMP report, and also attached as Annex 6 to this report.

1.6.4   Data analysis

25. The data collected from the field was analyzed and the possible environmental impacts were highlighted

1.6.5   Compilation of Deliverables

26. The ESMP report was compiled based on the above stated data collected via field visits, stakeholder consultation and expert's evaluation

1.7   Structure of the ESMP Report

27. The ESMP report is organized into 8 sections. Section 1 provides an introduction to the ESMP and its components. Section 2 discusses legal and policy frameworks in Pakistan

that are relevant to PRRP. The section also identifies relevant World Bank safeguard policies and standards that apply to PRRP. Section 3 provides insights into the project activities. Section 4 discusses the environmental and social baseline conditions. This section is divided into subsections relating to physical environment and biological environment, and social conditions. Section 5 details the summary of stakeholder consultation activities undertaken for this ESMP. Section 6 describes the potential environmental and social impacts and proposes mitigation measures to manage the impacts. Section 7 highlights the mitigation measures in ESMP for all phases of the Project. Lastly section 8 provides structure and mechanism for addressing grievances that may arise due to PRRP activities.

2 Legal Framework and Applicable Environmental and Social Safeguard Policies

28. This chapter presents an overview of existing national and provincial regulatory frameworks as well as the World Bank Environmental & Social Standards under the ESF along with the applicable signed and ratified international treaties. These legislations and WB ESSs and their relevance to the proposed project, are briefly discussed below.

2.1 Legislation on E-Waste in Pakistan

29. Federal Environmental Protection Agency (EPA) has drafted E-waste Management Rules 2021 which are under review and will pass through formal approval stages. Such rules will be applicable only after approval by relevant forum. Hence, currently there is no specific legislation dealing with e-waste in Pakistan. Hazardous Substances Rules by EPA in Islamabad and Provincial EPAs deal with hazardous waste management not including/considering the e-waste.

2.2 Constitutional Provision

30. The enactment of comprehensive legislation on the environment, covering multiple areas of concern, is an on-going phenomenon in Pakistan, whereas, a basic policy and legislative framework for the protection of the environment and overall biodiversity in the country is now in place. Besides environmental statutes, several laws governing the social performance of the project also exist, e.g. Protection Against Harassment of Women at Work Place Act 2010

31. After the 18th amendment to the Constitution in 2010, the power to legislate and decide on the subject of "environmental pollution and ecology" now lies with the provincial governments.

32. Therefore, there are a number of national level policies and laws and provincial statutes relevant to PRRP briefly described as follows:

2.3 Constitutional Provision on Gender Equality

33. The Constitution of Islamic Republic of Pakistan provides the principle of equal rights and equal treatment to all citizens/ persons, without any distinction including on the basis of sex. The following articles of Constitutional of Islamic Republic of Pakistan broadly cover women rights:

Article 3 calls upon the State to eliminate all forms of exploitation.

Article 4 provides for the right of individual to enjoy the protection of law and to be treated in accordance with the law. This applies to the citizens as well as "to every other person for the time being within Pakistan" without distinction. This article also clearly states that certain rights cannot be suspended.

Article 25 ensures equality before the law and equal protection of the law and states that there shall be no discrimination on the basis of sex alone.

Articles 25(3) and 26(2) allow the state to make special provisions for the protection of women and children.

Article 26 & 27 provide for equal access to public places and equality of employment in the public and private sector.

Articles 11 & 37 (g) prohibit trafficking in human beings as well as prostitution.

Article 32 makes special provisions for the representation of women in local Government.

Article 34 directs the state to take appropriate measures to enable women to participate in all spheres of life and social activities.

Article 35 asks the state to protect the marriage, the family, the mother and the child.

Article 37 (e) directs the state to make provisions for securing just and humane conditions of work ensuring that children and women are not employed in vocations unsuited to their age or sex, and for ensuring maternity benefits for women in employment

Articles 51 & 106 provide for the reservation of seats for women in the legislatures.

2.4   National Environment Policy 2005

34. NEP is the primary policy of Government of Pakistan that addresses the environmental issues of the country. The broad goal of NEP is, "to protect, conserve and restore Pakistan's environment in order to improve the quality of life of the citizens through sustainable development."

35. NEP provides a framework for addressing the environmental issues. Section 5 of the policy commits for integration of environment into development planning as instrument for achieving the objectives of National Environmental Policy. It also provides broad guidelines to the Federal Government, Provincial Governments, and Local Governments to address their environmental concerns and to ensure effective management of their environmental resources.

2.5   Pakistan Environmental Protection Act 1997

36. Pakistan Environmental Protection Act (PEPA) is the apex environmental law in the country, and provides for the protection, conservation, rehabilitation and improvement of the environment, for the prevention and control of pollution, and for promotion of sustainable development.

37. PEPA is broadly applicable to air, water, soil, marine, and noise pollution, as well as the handling of hazardous waste. Penalties have been prescribed for those contravening the provisions of the Act. The powers of the Federal and Provincial Environmental Protection Agencies were also considerably enhanced under this legislation and they have been given the power to conduct inquiries into possible breaches of environmental law either of their

own accord or upon the registration of a complaint. Under section 12 of PEPA, no project involving construction activities or any change in the physical environment can be undertaken unless an Initial Environmental Examination (IEE) or Environmental Impact Assessment (EIA), as required, is conducted and a report is submitted to the Federal EPA.

38. The review of PEPA 1997 indicated that PRRP has no relevance to section 12 of this Act as the project does not fall under any of the Schedules annexed with this Act. Therefore, there is no requirement of IEE or EIA for this project and no environmental approval is required from federal EPA but for the sub project activities screening checklists will be used to assess the impact of the sub projects.

39. Section 14 of PEPA refers to hazardous substances that have relation to PRRP regarding disposal of e-waste. According to this section, no person shall generate, collect, consign, transport, treat, dispose of, store, handle or import any hazardous substance except under a license issued by the Federal Environmental Protection Agency.

2.6 Provincial Environmental Protection Acts

40. Environmental pollution control associated with hazardous waste is addressed in Punjab Environmental Protection Act 2012 under Section 13 and 14. Under Section 13 'Prohibition of Import of Hazardous Waste', no person shall import hazardous waste into the Punjab. Under Section 14 'Handling Hazardous Substances', no person shall generate, collect, consign, transport, treat, dispose of, store, handle or import any hazardous waste except under a license or in accordance with the provision of any other law or of any international treaty, convention, protocol, code, standard, agreement or other instruments to which Pakistan is a party. Under the Hazardous Substance Rules, 2003, made under Pakistan Environmental Protection Act 1997 (PEPA 97), license will be required for the import and transportation of hazardous substance from Federal or Provincial agency. The application for the grant of license for the industrial activity involving generation, collection, consignment, transport, treatment, disposal, storage, handling or import of hazardous substances, will also be accompanied with EIA report and safety plan. The validity of the license will be for three years from the date of issue. The licensee will notify any major accident occurring at licensed facility to provincial and federal agencies. There will be packing and labelling requirements, safety precautions for the premises and workers which will have to be followed. The licensed facility may be inspected by the provincial or federal staff.

41. The Pakistan Penal Code discusses offences where public or private properties and/or human lives are affected due to intentional or accidental misconduct of an individual or body of people. The Code defines the penalties for violations concerning pollution of air, water bodies and land.

42. Punjab Local Government Act 2013 (PLGA 2013) addresses the environmental pollution control for the waste under i) Fourth Schedule, Part I (Sr. No: 1): discharging any dangerous chemical, inflammable, hazardous or offensive article in any drain or sewer, public water course or public land; ii) Part II (Sr. No: 23A): Dumping of solid waste and

refuse by any person or entity on a place other than landfill or dumping site, notified or designated by the concerned local government; iii) Fifth Schedule (Sr, No: 26): Damaging or polluting physical environment, inside or outside private or public premises, in a manner to endanger public health.

43. In terms of program systems and capacity, the major findings indicate that current regulations at both provincial and federal levels lack specific provisions pertinent to e-waste management. Hazardous substances, mentioned under Hazardous Substance Rules, 2003, to be controlled, do not mention e-waste, rather different hazardous chemicals and heavy metals are mentioned which can be the part of the e-waste or released during dismantling, burning, chemical processing or disposing on the land. Enforcement of these provisions is weak in the country and Punjab due to lack of enforcement infrastructure and resources. There are no certified e-waste recycling facilities and recyclers in Pakistan for environmentally sound recycling of e-waste generated in the country.

2.7 Environmental Protection Agency Review of IEE & EIA Regulations, 2000

44. These Regulations define procedures for preparation, review and approval of environmental assessments. The projects falling under any of the categories listed in Schedule-I require preparation of Initial Environmental Examination report, whereas those falling under categories listed in Schedule-II require preparation of Environmental Impact Assessment.

45. *Based on the review of both Schedules of Federal EPA as well as of provincial EPAs it has been concluded that PRRP project does not fall under any category of Schedules. Further to that, PRRP activities will be carried out in existing environmental setting i.e., existing building with no infrastructure changes or new construction, therefore, the project is unlikely to pose any environmental threat to physical or biological environment. Therefore, approval from EPAs will not be required.*

2.8 Hazardous Substances Rules

46. *Federal EPA has developed rules for Handling, Manufacture, Storage, Import of hazardous waste and hazardous substances. The rules developed in 2016 mostly deal with chemicals and require development of management plan for such wastes. These rules define toxicity of wastes from toxic to highly toxic to extreme toxic. Despite providing a comprehensive list of hazardous wastes, these rules have not touched E-wastes. Similarly, Balochistan Hazardous Substances Rules 2020, Punjab Hazardous Substances Rules 2019, Hazardous Substances Rules by Sindh 2014 and Hazardous Substances Rules by Ministry of Climate Change 2016 do not cover E-wastes.*

47. *It is concluded that E-waste will be managed through development of E-Waste Management Plan which will be aligned with hazardous substances rules that require management plans of similar type. In this way, PRRP will abide by the existing legislation in Pakistan.*

2.9   Occupational Health & Safety Laws

48. In Pakistan, the Occupational Health and Safety (OHS) in different sectors is covered in various laws. The following pieces of legislation could be relevant to the project in terms of OHS aspects; however, the exact applicability of these to specific project activities are subject to discussion and legal opinion:

- Factories Act 1934
- North-West Frontier Province Factories Rules 1975
- West Pakistan Hazardous Occupations Rules 1963

49. A single comprehensive law covering OHS, Pakistan Occupational Health and Safety Act 2018 is still in the draft form. It warrants the establishment of a National OHS Council for policy steerage and National OHS Directorate to operationalize OHS laws. It also clearly defines the OHS rights of the workers. It establishes that in case of contravention of this Act by any Government Agency, local authority or local council, the head of the respective organization will be deemed guilty.

2.9.1   Punjab Occupational Health and Safety Act 2019

50. Punjab OHS Act 2019 had been formulated with a vision to ensure gainfully employed and satisfied labour force which optimally contribute to national growth and work in a decent environment as per national and international standards.

51. The act will help in protecting the rights of some of the most disadvantaged workers in the province by providing them with the official identity of worker and a forum for redressal of their grievances.

2.9.2   Sindh OHS Act 2017

52. The Sindh OHS Act 2017 has been promulgated to make provisions for occupational safety and health conditions at all workplaces in the province for the protection of workers during work. The law is meant to improve the environment of workplaces and to safeguard the lives of the workers. The act requires registration of workers and notification and investigation of accidents, dangerous occurrences, and occupational illnesses.

53. *The requirements of all the applicable OHS laws on PRRP have been reviewed and Labor Management Procedures have been developed accordingly.*

2.10   Minimum wages regulations

54. Minimum Wage is the wage level set by the Government below which it is illegal for the employer to pay his/her employees.

55. Minimum Wage in Pakistan is set by the following ordinances and acts:

1. The Minimum Wages Ordinance, 1961 (applicable in ICT and Balochistan)
2. The Minimum Wages Ordinance, 1961 (adapted in Punjab by 2012 Amendment Act)
3. The Khyber Pakhtunkhwa Minimum Wages Act, 2013
4. Sindh Minimum Wages Act, 2015

56. Wages, as defined under the Minimum Wages Ordinance 1961, mean all remuneration, expressible in monetary terms, and payable to a person on fulfillment of the express or implied terms of employment contract but does not include contributions paid by the employer on behalf of the worker under any scheme of social insurance, pension fund or provident fund; travelling allowance or value of any travelling concession; amount paid to defray special expenses incurred by the worker in respect of his employment; any sum paid as annual bonus; or any gratuity paid on contract termination. Minimum Wages Ordinance, 1961 applies to all industrial establishments' employees (whether skilled, unskilled or apprentices and even domestic workers) but it excludes the employees of Federal or Provincial governments, coalmine employees or persons employed in agriculture.

57. The applicable minimum wages of respective province will be followed during implementation of the project.

2.11 Pakistan Penal Code, 1860

58. The Pakistan Penal Code (PPC) deals with offences where public or private property and/or human lives are affected due to the intentional or accidental misconduct of an individual or body of people. In the context of the environment, the PPC empowers the local authorities to control noise, noxious emissions and disposal of effluents.

59. *The Penal Code can provide a basis to coordinate project activities with the local authorities to ensure that the E-waste disposal activities do not become a cause of public nuisance or inconvenience. Pollution offences can still be tried under the relevant sections of PPC, 1860, as they have not been specifically repealed by subsequent legislation.*

2.12 Labor Law Constitutional Provision

60. The Constitution of Pakistan contains a range of provisions with regards to labor rights found in Part II: Fundamental Rights and Principles of Policy. The acts related to labor laws are Factories Act 1934, Employment of Child Act (ECA), 1991 are relevant to the project.

2.13 Employment of Child Act, 1991

61. Article 11(3) of the constitution of Pakistan prohibits employment of children below the age of 14 years in any factory, mine, or any other hazardous employment. In accordance with this article, the ECA 1991 disallows such child labor in the country.

2.14 The Protection Against Harassment of Women at Workplace Act, 2010

62. Pakistan has enacted the law namely "The Protection Against Harassment of Women at Workplace Act, 2010". This was the first time that sexual harassment has been defined in Pakistan through a legislative instrument. Before this enactment, there was no clear definition of harassment, whether at public, private or workplaces. Section 509 of Pakistan Penal Code 1860, talked about "insulting the modesty" of a woman but there was no clear definition of "modesty". Moreover, there was no law to prohibit harassment at workplace. The Act clearly defines harassment and includes harassment at workplace as well. It has also raised the maximum punishment for perpetrator from one to three years.

63. Section 2 of this act says that it can include "any situation that is linked to official work or official activity outside office". So, it can occur outside office when a colleague is harassing other worker outside office or while commuting on employer-provided transport, in a social event like employer organized dinners, lunches, training event or dealing with clients outside one's office. And the workplace for a marketing employee is not a building; rather the whole marketing area is her workplace.

2.15 The Protection Against Harassment of Women at Workplace (Amendment) Bill, 2022

64. The Protection against Harassment of Women at the Workplace (Amendment) Bill, 2022, enacted January 14, expands the definition of workplaces to encompass both formal and informal workplaces, bringing it closer to the definition set out in the 2019 International Labour Organization (ILO) Violence and Harassment Convention (C190), which Pakistan has not ratified. The new legislation specifically includes domestic workers, who are often isolated and marginalized, and as a result can be at greater risk of workplace violence and harassment.

65. The new law includes an expanded definition of harassment that includes "discrimination on the basis of gender, which may or may not be sexual in nature." The law extends protections against harassment and violence to students, a category excluded by the previous law. It also streamlines the complaints process and includes specific protections to prevent retaliation.

2.16 Pakistan Disability Act, 2020

66. Pakistan on 16th September 2020 passed a new disability law through a joint session of parliament, raising hopes that discrimination, especially in the workplace, against millions of Pakistanis could be curbed.

67. According to Human Rights Watch, estimates of the number of people living with disabilities in Pakistan wildly vary from 3.3 million to 27 million. Pakistan ratified the Convention on the Rights of Persons with Disabilities in 2011.

68. The new law covers areas like the political participation of persons living with disabilities, equity in education and employment, equality before the law, ease of access and mobility, and protection from violent, abusive, intolerant and discriminatory behavior.

69. The Supreme Court also ordered the federal and provincial governments to discontinue the use in all official documents and correspondence of derogatory terms such as "disabled," "physically handicapped," and "mentally retarded," and instead use "persons with disabilities" or "persons with different abilities."

2.17 Pakistan Nuclear Regulatory Authority Regulations

70. Pakistan Nuclear Regulatory Authority (PNRA) is mandated to control, regulate, and supervise all matters related to nuclear safety and radiation protection measures in Pakistan. PNRA grants authorizations and licenses to all nuclear installations, radiation facilities and associated activities. Furthermore, PNRA has the authority to conduct inspections to verify compliance with the regulatory requirements and take appropriate enforcement actions in case of any noncompliance. An important function of PNRA is to ensure that arrangements to mitigate the consequences of a potential nuclear or radiological emergency are appropriately maintained by the licensees.

71. PNRA has issued regulations related to x-ray-based scanners including:

    a) Regulations on Radiation Protection - (PAK/904)
    b) Regulations for the Licensing of Radiation Facility(ies) other than Nuclear Installation(s) - (PAK/908)

72. The review of above regulations highlighted that the procurement, import, installation, licensing, operation along with environmental monitoring and final disposal of cargo scanners having radiation source is regulated by PNRA. Therefore, the project will coordinate with PNRA for procurement, installation, licensing, and operation of x-ray-based cargo scanners and will also comply with the requirements of PNRA set out in the above regulations.

2.18 Applicable World Bank Environmental & Social Standards

73. The World Bank's Environmental and Social Standards (ESSs) under Environmental and Social Framework (ESF)[5] set out the requirements for identification and assessment of environmental and social risks and impacts associated with projects supported by the Bank through IPF. Application of these standards, by focusing on identification and management of environmental and social risks, will support the goal to reduce poverty and increase prosperity in a sustainable manner for the benefit of the environment and community.

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[5] https://www.worldbank.org/en/projects-operations/environmental-and-social-framework

74. World Bank's Environmental and Social Standards applicable to PRRP are described as below:

2.18.1 ESS1 Assessment and Management of Environmental and Social Risks and Impacts

75. ESS1 sets out the principles for the effective environmental and social assessment of projects, conduction of stakeholders' engagement, legal agreement between the Borrower and the Bank for effective implementation and management of the environmental and social risks via Environmental and Social Commitment Plan (ESCP) and conduction of monitoring as well as regular reporting of environmental and social performance against the ESSs.

76. As committed in the Environmental and Social Commitment Plan, this ESMP has been conducted in accordance with ESS1, to identify, mitigate and manage the perceived environmental impacts related to the project with a focus on replacement of ICT equipment, installation of electronic system for taxpayers, disposal of obsolete ICT equipment, and minor civil works for installation of x-ray-based cargo container scanners such as excavation, construction of foundation and base. The assessment has been conducted jointly by the team of PRRP (details of the team attached as Annex 8).

77. Major risks covered under this ESMP study are:
    1. Generation of e-waste and nonexistence of policy to manage and dispose of e-waste (for e.g., computers, printers, monitors etc.)
    2. Generation of construction material related waste.
    3. Safety issues to workers from civil works.
    4. Safety risks to workers due to radiation exposure.
    5. Social Exclusion of women tax payers.
    6. Gender disparity in project activities.

2.18.2 ESS2 Labor and Working Conditions

78. This standard is relevant to the project. It pertains to all staff, including direct workers, indirectly employed labor such as contracted workers, and workers hired by project suppliers. FBR has developed written labor management procedures that will ensure safety and health at work, fair treatment, non-discrimination, and equal opportunity for workers including vulnerable, disabled and children, and would support freedom of association and collective bargaining. Accessible means to raise workplace concerns and complaints will also be ensured for all types of workers through an effective GRM (in addition to the one set up under ESS 10). All of this will be done in accordance with the national law and ESS2. Specifically, for civil works pertaining to installation of container scanners, implementation of the E-waste management and disposal plan of IT equipment likely labor involved will be that of the project proponent and implementing agencies, for procuring the IT equipment and contracted workers for collection, transportation and recycling activities as well as those for civil works regarding the installation of scanners. The type and category of these workers will depend on the contractual arrangements, and hence determined at a later stage which will be covered in the environmental and social screening checklists.

2.18.3 ESS3 Resource Efficiency and Pollution Prevention and Management

79. ESS3, Resource Efficiency and Pollution Management Standard is relevant to the project since the project will generate electronic waste (E-Waste) while replacing old IT equipment of all Inland Revenue Services (IRS) offices across the country and related minor electrical waste during installation of the ICT equipment. This activity of replacement of IT equipment cannot be avoided by the project as it is critical to enhancing and improving efficiency of tax collection and improving the service delivery of the FBR. Generation of e-waste poses environmental and health risks directly in the form of hazardous waste and indirectly, as a result of informal precious and semi-precious metals extraction

80. Alternatively, adoption of more efficient and effective resource consumption measures, pollution prevention and GHG emission avoidance, and mitigation technologies and practices could provide a more sustainable approach for project implementation. Further, in accordance with the ESS3 and mitigation hierarchy, inclusion of environmental good practices, particularly improvement in resource efficiency in relation with procurement of electronic equipment will be considered. Henceforth, the specifications of all equipment will be reviewed and energy efficient alternatives will be proposed by the E&S Specialist.

81. An e-waste management plan (Annex 2) in accordance with WB's Mitigation Hierarchy, has been developed by the FBR, following national law and regulations, and GIIP which are consistent with the EHSGs to dispose the E-waste. FBR will implement the EWMP throughout project life cycle.

82. With regards to radiation exposure to workers, SOPs for safe operation of scanners will be developed in consultation with PNRA and the manufacture's guidelines. Such SOPs will be developed at the licensing stage and will be implemented during the implementation stage of project.

2.18.4 ESS4 Community Health and Safety

83. Environmental and social management plan under ESS1 evaluates and establishes applicability of this Standard to the Project. There can be potential risks to communities' health and safety due to ineffective disposal of e-waste generated by the project. The majority of the e-waste and its components are recycled or reused by formal and informal sector in Pakistan depending on the recycling capacities of the business owners. In Pakistan, e-waste recycling is carried out in informal facilities (small workshops) for recovering valuable metals such as copper and gold. The normal process includes dismantling, open burning, acid bath and use of blow torches. The workers perform these acts without any personal protective equipment such as protective respiratory equipment or special clothing. These facilities lack good ventilation systems and the workers are exposed to toxic emissions from such activities. Unfortunately, the workers and people residing in the neighborhood of e-waste recycling facilities are not aware or well informed about the hazards associated with recycling of e-waste. The major recycling facilities are located in all major cities of Pakistan including Karachi, Lahore, Faisalabad, Gujranwala, Islamabad and Rawalpindi.

84. Installation and use of x-ray-based scanners within the existing premises of ports and sea ports will have no impact on nearby communities.

2.18.5 ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlements

85. Since project activities will be confined to existing offices of FBR, this project does not involve any land acquisition and resettlements, therefore, ESS5 is not applicable.

2.18.6 ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

86. ESS6 recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development. Project activities will have no impact on biodiversity of Pakistan. Therefore, ESS6 will not be applicable to PRRP.

2.18.7 ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

87. ESS7 is not applicable to PRRP. The project does not propose any works in Kalash Valley and hence, will not have effect on indigenous people and traditional local communities of Pakistan.

2.18.8 ESS8 Cultural Heritage

88. ESS8 is not applicable to the project. ESS8 recognizes that cultural heritage provides continuity in tangible and intangible forms between the past, present and future. Cultural heritage, in its many manifestations, is important as a source of valuable scientific and historical information, as an economic and social asset for development, and as an integral part of people's cultural identity and practice. The project activities are confined to existing buildings and no construction is involved.

2.18.9 ESS9 Financial Intermediaries

89. Since no financial intermediaries are involved in PRRP, ESS9 will not be applicable.

2.18.10 ESS10 Stakeholder Engagement and Information Disclosure

90. FBR has developed a Stakeholder Engagement Plan (SEP) with the support of a Social Development Specialist, external to FBR and the World Bank. The exercise entailed identifying project affected parties and other interested parties as part of the stakeholder identification and analysis process, including identification of vulnerable groups/people to be affected by the Project. The SEP also lays out the modes and frequency of engagement with the different types of stakeholders. It is a live document which will be updated periodically through the life of the project.

91. In accordance with ESS10 stakeholder consultations have been held with Inland Revenue, Pakistan Customs, PNRA, EPA, South Asia Pakistan Terminals and related stakeholders on environmental aspects of the project (please refer to section 5.3 for more details).

2.19 Environmental, Health, and Safety (EHS) IFC General Guidelines

92. The IFC EHS Guidelines[6] are technical reference documents with general and industry-specific examples of Good International Industry Practice and are referred to in the World Bank's Environmental and Social Framework and in IFC's Performance Standards.

93. The proposed sub project does not fall under sector specific guidelines therefore EHS general guidelines will be applicable to the project activities as given below. The project contractors will follow the applicable guidelines as delineated in the guidance document reproduced below:

1. Environmental
   1.1 Air Emissions and Ambient Air Quality
   1.2 Energy Conservation
   1.3 Wastewater and Ambient Water Quality
   1.4 Water Conservation
   1.5 Hazardous Materials Management
   1.6 Waste Management
   1.7 Noise
   1.8 Contaminated Land
2. Occupational Health and Safety
   2.1 General Facility Design and Operation
   2.2 Communication and Training
   2.3 Physical Hazards
   2.4 Chemical Hazards
   2.5 Biological Hazards
   2.6 Radiological Hazards
   2.7 Personal Protective Equipment (PPE)
   2.8 Special Hazard Environment
   2.9 Monitoring
3. Community Health and Safety
   1.1 Water Quality and Availability
   1.2 Structural Safety of Project Infrastructure
   1.3 Life and Fire Safety (L&FS)
   1.4 Traffic Safety
   1.5 Transport of Hazardous Materials
   1.6 Disease Prevention
   1.7 Emergency Preparedness and Response
4. Construction and Decommissioning
   1.1 Environment

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[6] https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines

1.2 Occupational Health and Safety
1.3 Community Health and Safety

94. The project contractors for installation of new ICT equipment will follow guidelines at serial numbers 1.1, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3, 2.7, 2.9, 3.1, 3.3, and 3.5.

2.20 Relevant International Conventions / Treaties

95. Table 1 shows the international conventions to which Pakistan is a signatory and are relevant to project interventions:

Table 1: International Conventions

Category	Convention	Relevance to PRRP
Hazardous wastes (E-waste)	Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal (1989)	PRRP will ensure that the project activities do not contribute towards exacerbation of the issue of e-waste export to other countries. PRRP will -ensure this through implementation of e-waste management plan as well as through monitoring by PRRP teams.
Atmosphere conventions/protocols	United Nations Framework Convention on Climate Change (UNFCCC)	The crude E-waste disposal through open burning in different cities of Pakistan for extraction of metals generates smoke and toxic fumes affecting climate of Pakistan. E-waste generated by PRRP might end up in similar way which needs to be managed through EWMP. EWMP will ensure proper e-waste recycling for the e-waste generated under PRRP without burning. Mitigation measures have been included in EWMP which will be implemented on e-waste and validated by third party monitor.
Radiological emergency	Convention on Early Notification of a Nuclear Accident and Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency	The vehicle/container scanners will use x-rays which will be of concern to safety of drivers and operators. Pakistan Nuclear Regulatory Authority and manufacturer's guidelines will be consulted for development of guidelines for safe use of scanners by the operators.

3 Project Background

96. Good international industrial practices around the world have shown that nations cannot progress without having adequate revenues and to generate revenues they need to be equipped with modern Information and Communication Technology (ICT) equipment, business intelligence tools, and expertise in data analytics and sciences.

97. Recognizing the importance of ICT and the outcomes of a data driven tax applications, Federal Board of Revenue (FBR), Pakistan is committed to transform its ICT Vision into reality to become a modern, fully automated and data driven organization, having integrated systems that are not only internally connected but are connected nationwide with all the organizations (public and private) that can help identify tax frauds.

3.1 Project Activities

98. The objective of the Project is to contribute to a sustainable increase in domestic revenue by broadening the tax base and facilitating compliance.

99. The Project consists of the following components:

Component 1:

1. Improving the simplicity, transparency, and coherence of the tax system through, *inter alia*:

2. Improving effective compliance control and enforcement of taxpayer obligations through, *inter alia*:

3. Facilitating compliance with taxpayer obligations through, *inter alia*:

4. Strengthening institutional development to increase efficiency and accountability through *inter alia*:

Component 2:

Investing in FBR's ICT infrastructure, supplying, and installing equipment for automated customs control points, and carrying out consulting services for software development and technical assistance for complex initiatives (e.g. business process improvement and change management), including, *inter alia*:

1. Replacing end-of-life equipment, establishing an Active-Active Private Cloud and purchasing up-to-date versions of branded software currently used by the FBR.

2. Establishing Data Warehouse and Business Intelligence tools through, *inter alia*:

(a) Purchasing a state-of-the art Data Warehouse solution with the capacity to handle big data to accommodate an exponential increase in data volume through a growing number of data sources; and

(b) Acquiring and customizing state-of-the-art Business Intelligence tools needed to analyze information and detect inconsistencies and irregular patterns indicative of tax evasion or other suspicious activities.

3. Establishing an Automated Entry-Exit System for customs through the supply and installation of ICT and cargo scanning equipment for non-intrusive inspection of cargo for imports, transit, and exports at seaports (Karachi East, Karachi West, Port Qasim, and Gwadar). X-ray based vehicle/container scanners using a drive through technology at seaports and stationery at airports will be installed at these identified ports as well as at airports. This activity will provide ICT and scanning and weighing equipment for non-intrusive inspection of import, export and transit cargo at seaports and three airports with a view to reduce and improve the physical inspections procedures at the ports and implement pre-arrival/pre-clearance procedures. The type of scanners includes portable gantry and truck portal scanners. Remote image analyses center will be established consisting of physical room, equipment, communication software, etc. that will serve the function of centralizing radioscopic image analyses with direct links to the central image repository.

4. Upgrading the network connectivity of all FBR offices and custom control posts through the supply and installation of ICT equipment to support real-time data sharing and communications.

5. Providing technical assistance to support (a) mapping and revising FBR Core Business Processes; (b) developing software to automate FBR Core Business Processes; and (c) implementing change management through, *inter alia*, new Standard Operating Procedures, staff manuals and staff training.

6. Providing technical assistance for the design of frameworks for Customs Central Risk Management and Post Clearance Audit (PCA) and supporting their application for the selection of goods declarations to be subjected to documentary review (yellow channel) or physical inspection (red channel) at the border, and to inform the selection of consignments for PCA.

3.2 Anticipated Project Activities

100. An estimation of existing ICT equipment in FBR offices has been made to quantify the equipment for replacement under the PRRP. The following tables present the estimated quantity of each type of existing ICT equipment that is to be replaced along with estimation of potential E-wastes.

3.2.1 Data Centers

101. FBR has 3 main data related centers in Pakistan including data center in FBR headquarters, PRAL office in Islamabad and Disaster Recovery office in Karachi. The equipment to be replaced at these offices along with estimated e-waste is presented in the tables below.

Table 2: Storage Area Network Solution

No.	Equipment for SAN Current Capacity	Location	Expected/estimated E-waste
1	400TB	Site A*	Nil.
2	300TB	Site B**	Nil.
3	End-of-Life	DR***	1 storage box with dimensions 82x27x27 inches.

*Site A: FBR Headquarter, Islamabad. **Site B: PRAL office I-9, Islamabad. ***DR: Disaster Recovery office, Karachi

Table 3: Data Backup Equipment

No.	Current Quantity of equipment	Location	Expected/estimated E-waste
1	1 Tape Library	Site A	Full Tape Library to be wasted
2	1 Tape library	Site B	Nil
3	End-of-Life	DR	Nil
4	1 VTL (160 TB)	Site A	Nil
5	1 VTL (160 TB)	Site B	Nil
6	None	DR	Nil

Table 4: Existing Network Equipment to be Replaced

No.	Component Description	Site A	Site B	DR	Estimated E-waste
1	Core Switches	2	2	None	Nil
2	TOR Switches	6	4	None	Nil
3	Layer3	End-of-Life	End-of-Life	End-of-Life	All layer 3 core switches each having 18x3x12 inches dimensions. Each weigh around 5 kg. Total weight approx. 60 kg.
4	Perimeter Firewall	End-of-Life	End-of-Life	End-of-Life	Nil
5	Core NG Firewall	2	2	None	Nil
6	Core Firewall	End-of-Life	End-of-Life	End-of-Life	Nil
7	VPN NG Firewall	2	2	None	Nil
8	VPN Firewall	End-of-Life	End-of-Life	End-of-Life	Nil
9	Core Router	2	2	None	Nil
10	Load Balancer	End-of-Life	End-of-Life	End-of-Life	Nil
11	AntiSpam	End-of-Life	End-of-Life	None	AntiSpam box
12	Link Load Balancer	End-of-Life	End-of-Life	End-of-Life	Link load balancer

Table 5: Existing Servers to be Replaced

No.	Component Description	Site A	Site B	DR	Estimated E-waste
1	96 core servers	12	12	None	Nil
2	Blade servers 64 cores	5	None	None	Nil
3	136 Servers 24 core	End-of-Life	End-of-Life	End-of-Life	50% to be wasted. Total weight 5440 kg approx.
4	44 Entry level servers (4 core)	End-of-Life	End-of-Life	None	All 44 servers. Total weight 3520 kg approx.
5	12 Low end servers	End-of-Life	End-of-Life	End-of-Life	All 12 low end servers. Total weight 960 kg approx.

Table 6: Scanners for Sea Ports

Description	Unit	Approx. Quantity
X-Ray Truck Ganntry Scanners 6 MeV	Nos.	3
X -Ray Truck Portal Scanners 4.5≈4.7 MeV	Nos.	3
X-Ray Car/BUS/EU Scanners 1 MeV	Nos.	3
Under vehicle scanners	Nos.	3

3.2.2   Regional Offices

102. Besides data centers, ICT equipment will be provided to more than 35 regional offices of FBR across Pakistan. Regional offices comprise regional taxation offices and Pakistan Customs. Currently the offices are in the phase of identifying the ICT equipment needs while continuing the use of existing systems. During stakeholder consultations, it was pointed out that dismantled equipment at such offices will be reused at sub offices. Therefore, the quantity of E-waste will be very low and will be estimated at the time of dismantling. The type of equipment to be dismantled will include desktops, laptops, printers, and servers/network switches. Similar equipment will be provided to those offices under PRRP.

103. The preliminary identified offices of FBR where PRRP activities will be implemented are 35 in number. Details of these offices are provided in Annex 9. The tentative estimation of IT equipment to be procured is given in the table below.

Table 7: Other New Equipment to be Procured and Estimated E-waste to be Generated

No.	Equipment type	Quantity to be procured	Estimated e-waste
1	Desktop computers	1528	1528
2	Laptops	1972	1972
3	Printers	780	780
4	Scanners	250	250
5	Power Supplies	320	320

3.3 Current E-Waste Management/Reuse Practices

104. Currently, the equipment is in running condition with risk of going offline anytime. As such when this operational equipment will be dismantled, FBR teams will assess each component for its future use whether it is safe for use in sub offices or it poses serious risks of data loss. It is assessed through meetings and phone call discussions with staff of FBR at regional offices that quite a good percentage of equipment will be reused thus prolonging its useful life. The assessment has been made while reviewing the current use of equipment and its effectiveness for reuse at sub offices. Nevertheless, the equipment to be procured under PRRP will replace the existing equipment, hence, the equipment to be replaced can be regarded as e-waste. Actual quantity of E-waste will be assessed during dismantling phase.

3.4 Installation of ICT Equipment

105. Equipment will be installed by the staff of Contractor supplying ICT equipment at each office as per work order issued. Timelines will be decided with the contractor so as to minimize the disruption of services to FBR staff as well as to the general public. The contractor will have to test run the equipment before handing it over to the FBR office concerned.

4 Environmental and Social Baseline

106. This section of the ESMP identifies the study area i.e., the project area of influence, including the existing infrastructure such as the FBR office buildings where ICT equipment is already installed and will be replaced with new/updated ICT equipment under this project. For social assessment, focus on key socio-economic parameters was made. It is pertinent to mention here that the project aims to replace ICT equipment from its existing locations in already established buildings with new equipment without any change in infrastructure or creating new infrastructure. Therefore, no new civil works are foreseen except for minor electrical works for the installation of new hardware, as well as no land acquisition is involved. Project activities do not involve interaction with communities except E-waste disposal activities wherein workers will be involved, and these will be performed by disposal contractor(s) under strict control and monitoring of PMU ensuring the environmental and social safeguards are followed. In addition, the project will support the installation of cargo scanning x-ray technology in the four main seaports in Karachi and cargo sheds located at the international Karachi airport.

107. Component 2 of PRRP is spread throughout the geographical coverage of Pakistan. It is not confined to a specific geographic region, or a province or a district, rather the project activities will be carried out in FBR offices spanning across all provinces of Pakistan i.e., Islamabad Capital Territory, Provinces of Baluchistan, Khyber Pakhtunkhwa, Punjab and Sindh of Pakistan Customs offices.

108. The project will support the financing of the automation and computerization of the Tax process and offices at national and provincial levels. ICT equipment including PCs, laptops, scanners and printers, etc. will be dispatched throughout IRS (Inland Revenue Services) offices and customs offices across urban centers of Pakistan. The tentative estimated quantity of e-waste to be generated is provided in section 3.2.

109. This section describes the baseline situation for the project in accordance with current and available information as well as site visits conducted. The section assesses the scope of the area (limited to government offices) to be studied and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences. Accordingly, this section of the report discusses the existing environmental and social conditions within the Project Area of Influence (i.e., existing offices and infrastructure of FBR) under the following headings:

Environmental Baseline:
- Physical Resources
- Biological Resources

Social Baseline
- Demographics
- Ethnicity and Language
- Literacy and Education
- Livelihood and Digital Landscape

- Digital Landscape of Pakistan
- Women Status in the Tax and Revenue Administration
- Women Taxpayer Status and overall Gender issues in the country
- Gender Digital Divide
- Current Status of FBR on Outreach Programs o IT and Tax Literacy
- Minorities and Differently abled staff
- Cultural and Physical Heritage
- Social Conflicts – FBR specific
- Cyber Attacks and Data Theft

4.1 Prelude

110. Pakistan lies in South Asia at the crossroads of Central Asia, East Asia and South Asia. Located along the Arabian Sea, it is surrounded by Afghanistan to the west and northwest, although Tajikistan is separated by the Wakhan Corridor, Iran to the southwest and also shares maritime boundary with Oman, India is to the east, and China to the northeast. It is strategically located astride the ancient trade routes of the Khyber and Bolan passes between the countries of South-Central Asia and rest of Southern Asia. It is the world's fifth-most populous country with a population exceeding 212.2 million and has the world's second-largest Muslim population. Pakistan is the 33rd-largest country by area, spanning 881,913 square kilometers (340,509 square miles). It has a 1,046-kilometre (650-mile) coastline along the Arabian Sea and Gulf of Oman in the south.

111. Geologically, Pakistan is located in the Indus–Tsangpo Suture Zone and overlaps the Indian tectonic plate in its Sindh and Punjab provinces; Balochistan and most of Khyber Pakhtunkhwa are within the Eurasian plate, mainly on the Iranian plateau. Ranging from the coastal areas of the south to the glaciated mountains of the north, Pakistan's landscapes vary from plains to deserts, forests, hills, and plateaus.

112. Pakistan is one of those few countries in the world which has every kind of geological structure. It has the sea, desert (Sindh & Punjab), green mountains (Khyber Pakhtunkhwa), dry mountains (Balochistan), mountains covered with ice, rivers, rich land to cultivate (Punjab & Sindh), water resources, waterfalls, forests etc. Khyber Pakhtunkhwa and Gilgit-Baltistan contain the mountain ranges of the Himalayas, the Karakoram, and the Hindu Kush. The Punjab province is a flat, alluvial plain whose rivers eventually join the Indus River and flow south to the Arabian Sea. Sindh lies between the Thar Desert, the Rann of Kutch to the east, and the Kirthar range to the west. The Balochistan Plateau is arid and surrounded by dry mountains. Pakistan experiences frequent earthquakes, occasionally severe, especially in north and west.

113. The climate setting of Pakistan is mostly hot, dry desert; temperate in northwest; arctic in north. The climate varies from tropical to temperate, with arid conditions in the coastal south. There is a monsoon season with frequent flooding due to heavy rainfall, and a dry season with significantly less rainfall or none at all. There are four distinct seasons in

Pakistan: a cool, dry winter from December through February; a hot, dry spring from March through May; the summer rainy season, or southwest monsoon period, from June through September; and the retreating monsoon period of October and November. Flooding is common along the Indus after heavy rains during July and August.

4.2 Baseline Description of FBR offices

114. Due to Covid-19 limitations, a few offices of FBR were visited (described in previous sections) for the purpose of this study, while interviews were conducted virtually via phone calls in other offices to assess the baseline situation using a questionnaire designed for this purpose (please refer to Annex 7 for the detailed questionnaire). The following baseline situation has been observed at offices visited during consultation process:

4.2.1 Location and Accessibility

115. FBR offices are located in commercial areas with well-developed infrastructure to run such offices. All the offices are easily accessible through major roads and have adequate space for office building and parking. Well defined security systems are in place that control entry and exit of people and staff while also observing Covid-19 protection protocols.

4.2.2 Environmental Settings for Installed ICT Equipment

116. Majority of the offices of FBR have adequate space for ICT equipment while a few such as those in Peshawar, Abbottabad, etc. lack proper space utilization for ICT equipment. Improvements are needed in few offices specifically in areas where IT equipment is installed such as rehabilitating the air conditioning system, repairing the rooftops without any civil works through fixing of new sheets (the sheets are general fall ceiling sheets that are meant for fitting in a frame) repairing the wiring connections, controlling entry of rodents, etc. Such requirements have been observed in offices at Multan, Peshawar and Abbottabad (see Annex 1 on pictures).

117. Dust entering from windows is common in the majority of offices. Dust reaches every corner of the buildings and even into the equipment rooms. Therefore, dust control especially in equipment rooms, is required through insulated doors and windows.

118. PRRP activities will disrupt functioning of offices and officers using the equipment being dismantled. Local administrations have planned to implement dismantling and installation on one-by-one basis (phased approach) so that least disruption to services may be allowed.

119. Network as well as electrical cables in offices need careful installation. Existing cables are not in proper order and can be seen dispersed/spread out across the equipment rooms (see Annex 1 for pictures).

4.2.3 Waste Management

120. The offices have management system for general wastes such as paper, plastics, etc. Wastes are collected in waste bins provided in all areas and transported to waste collection containers of Municipal Authorities on daily basis. As the offices are located in commercial and easily accessible sites, municipal waste collection services are available in the immediate vicinity of FBR offices. Food waste is often mixed with general waste and collected in same waste bins in plastic bags. Only metal wastes and e-waste are segregated due to their economic value. Offices have stores to keep used/discarded materials such as IT equipment and other wastes of commercial value. Few offices do not have dedicated space for storage; hence, waste/ discarded materials are stored in any available area whether in corridors or in open spaces (see Annex 1: Pictures).

121. Auction of solid wastes, particularly discarded materials, damaged vehicles, etc. is the common practice for disposing off such materials. Auction is held at local office level by the office administration staff through advertisements in newspapers, hence waste (including E-waste) being auctioned is very low in quantity.

4.2.4 E-Waste Management Practices

122. As soon as an electronic device or a component of any device becomes damaged and rendered unusable, it is removed from its location and sent to the storage place for temporary storing and subsequent disposal through auction. No recycling is done at office level. E-wastes are collected and stored in common place where other wastes are stored. Existing e-wastes observed at FBR offices include network servers, CPUs, keyboards, printers, copiers, backup power batteries, etc. e-wastes are commonly auctioned along with general wastes (which includes wood, metal, plastic, paper). E-wastes being auctioned are very low in quantity. Hence the auction is held at local office level. This makes it unfeasible for recyclers to burn or acid treat for extracting useful metals. Such wastes are, therefore, sent to registered scrap dealers in big cities once most of the useful components are removed from it and used locally by the technicians. Large scale general as well as e-waste scrap dealers are registered as a business company with district administration, Securities and Exchange Commission of Pakistan, Pakistan Engineering Council, FBR, and EPA concerned. The small-scale local level scrap dealers are usually not registered.

123. As per existing practices, administration in each FBR office has planned to reuse the dismantled equipment in sub offices as many of the sub offices lack IT equipment and the government has limited resources. Therefore, immediate, direct e-waste generation will be very low. Exact quantities will be defined through development of inventories during dismantling phase.

4.2.5 Common E-Waste Management Practices in Major Cities of Pakistan

124. The majority of the e-waste and its components are recycled or reused by formal and informal sector in Pakistan depending on the recycling capacities of the business owners.

125. E-waste recycling is carried out in informal facilities (small workshops) for recovering valuable metals such as copper and gold[7]. The normal process includes dismantling, open burning, acid bath and use of blow torches. The workers perform these acts without any personal protective equipment such as protective respiratory equipment or special clothing. These facilities lack good ventilation systems and the workers are exposed to toxic emissions from such activities. Unfortunately, the workers and people residing in the neighborhood of e-waste recycling facilities are not aware or well informed about the hazards associated with recycling of e-waste. The major recycling facilities are located in all major cities of Pakistan including Karachi, Lahore, Faisalabad, Gujranwala, Islamabad and Rawalpindi.

126. E-waste is dismantled, burned or dumped depending on its composition. Hundreds of workers including young workers earn their livelihood by dismantling and extraction of valuable items from the e-waste[8].

127. *E-Waste Recycling Centers in Karachi*: Lyari is the largest dumpsite in Karachi for e-waste along with Sher Shah, Jacob lines and Surjani town. When the waste is recycled or dismantled, the later bulk of waste is either landfilled or trashed into the Lyari River, which flows by the side of Lyari district. The river passes through the mangroves, and then finding its way into the Arabian Sea.

128. *E-Waste Recycling Centers in Lahore*: In Lahore, major markets of e-waste are Hafeez Center, Hall Road, Beadon Road, Misri Shah, Mayo Hospital and Pakistan Mint (Grand Trunk Road) in the Lahore city. E-waste is recycled and valuables are extracted in non-ventilated rooms in these areas, which cause potential serious health effects to the workers. Few years back city district government Lahore, a provincial body had shut down some 25 factories which were involved in the burning of batteries, containing lead and cadmium (Raza, 2010).

129. *E-Waste Recycling Centers in Rawalpindi*: In Rawalpindi e-waste recycling and dismantling is at a very small level as compared to Lahore and Karachi. The main area which deals with scrap and used electronics is College Road situated near Raja Bazaar which is the main business market in the city. E-wastes from Islamabad also reach this place through scrap dealers in Islamabad.

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[7] Khan, A.A., Ahmed, Z., Siddiqui, M.A., (2012. *Issues with solid waste management in South Asian countries: a situational analysis of Pakistan.* J. Environ. Occup. Sci. 1 (2), 129e131

[8] Saeed, A., (2013). Dangerous labour: the little-known e-waste phenomenon. Dawn 2013. http://www.dawn.com/news/1032967

Environmental and Social Implications of Informal E-waste Recycling

The uncontrolled recycling of e-waste known as "backyard recycling" by the so-called informal sector is the most pressing environmental issue associated with e-waste. Relevant case-studies about informal recycling of e-waste pointed out that primitive tools and methods such as open burning of plastic waste, exposure to toxic solders, and acid baths to recover valuable materials and components from e-waste with little or without safeguards to human health and the environment result in the pollution of the land, air, and water. Health effects of crude e-waste disposal methods have been reported. These include elevated levels of exposure of toxins in air, soil, water, and human tissue. This is because there are no criteria for reusability and no legally binding guidelines aimed at providing a common understanding practice of handling in developing and transition countries to manage e-waste.

Roughly 40 million metric tons of electronic waste (e-waste) are produced globally each year, and about 13 percent of that weight is recycled mostly in developing countries. About 9 million tons of this waste—discarded televisions, computers, cellphones, and other electronics—are produced by the European Union, according to the United Nations Environment Program (UNEP). Informal recycling markets in China, India, Pakistan, Vietnam, and the Philippines handle anywhere from 50 percent to 80 percent of this e-waste, often shredding, burning, and dismantling the products in "backyards." Emissions from these recycling practices are damaging human health and the environment.

The informal sector's recycling practices magnify health risks. For example, primary and secondary exposure to toxic metals, such as lead, results mainly from open-air burning used to retrieve valuable components such as gold. Combustion from burning E-waste creates fine particulate matter, which is linked to pulmonary and cardiovascular disease. While the health implications of E-waste are difficult to isolate due to the informal working conditions, poverty, and poor sanitation, several studies in Guiyu, a city in southeastern China, offer insight. Guiyu is known as the largest e-waste recycling site in the world, and the city's residents exhibit substantial digestive, neurological, respiratory, and bone problems.

Most of the components of electronic devices are not biodegradable posing a disposal challenge. Such waste ends up becoming a health hazardous as well as a landscape and visual intrusion problem. Furthermore, recycling practices of informal and micro enterprises magnify health risks. Incineration or burning of different components of e-waste to extract valuable components like gold results in release of toxic and noxious gases as well as particulate matter. Primary and secondary exposure to such fumes and particulate matter is linked to pulmonary and cardiovascular diseases. The improper disposal of e-waste through incineration is likely to lead to atmospheric pollution through the release of toxic and noxious gases in the atmosphere. The informal sector's recycling practices magnify health risks. For example, primary and secondary exposure to toxic metals, such as lead, results mainly from open-air burning used to retrieve valuable components such as gold. Combustion from burning e-waste creates fine particulate matter, which is found to be linked to pulmonary and cardiovascular disease.

Source: Williams E, Ramzy K, Allenby B, Kavazanjian E, Xu M, Kim J. (2008). Environmental, social and economic implications of global reuse and recycling of personal computers. International Journal Environmental Science Technology; 42(17): 6446-54

4.2.6 Current use of x-ray based scanners at Ports

130. Pakistan Customs is using x-ray based scanners at seaports as well as one scanner at Jinnah International Airport, Karachi. The scanners were installed before 2005. The scanners were imported in accordance with the PNRA regulations. SOPs/guidelines are available for the safe use of scanners. The existing scanners are used for scanning the contents in the baggage inside containers so as to identify the restricted items. Necessary infrastructure facilities for scanners such as carriage way, open space and storage are available.

4.2.7 Existing site conditions for proposed scanners

131. Sites proposed for the installation of new scanners will be located in highly commercial area of port. Infrastructure for movement of cargo and use of scanners is adequate. Space

for new scanners will be allocated during the project implementation. Movement of cargo has been observed to be systematic at the ports.

132. For the sea ports, the existing sites would be 10 to 20 meters away from the sea (docking stations in Arabian Sea). Cyclones in the Arabian Sea form mostly from May till June and then from September till October, monsoon season plays a vital role for the formation of cyclone in this basin[9]. Each year before the onset of monsoon that is 15 April to 15 July and also after its withdrawal that is 15 September to 15 December, there is always a distinct possibility of the cyclonic storm to develop in the north Arabian Sea. There is a 98 per cent chance of cyclones to turn towards the Indian state of Gujarat, one per cent chance of moving towards the Gulf and one per cent chance of moving towards the Pakistani coast. Cyclones mostly hit the Sindh coast than the Balochistan coast in Pakistan. During the last 125 years a number of cyclonic storms have struck Pakistan's coastal areas. The years involved were 1895, 1902, 1907, 1944, 1948, 1964, 1985, 1999, 2007 and 2010. Other cyclones that are listed below caused rains as remnants. Therefore, the probability of cyclone hitting Karachi is very low.

133. Karachi port has well defined storm water drainage system in place that caters for the need of active drainage of storm water in case of heavy rains and urban flooding. The storm water drainage system is presented in figure 1.

134. Karachi lies in seismic zone 2B whose peak horizontal ground acceleration ranges from 0.16 to 0.24 g[10]. Karachi has experienced no earthquake related damage in the recorded history of past ~ 175 years.

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[9] Pakistan: Cyclone Phet losing intensity: Met office, 2010; html address: https://reliefweb.int/report/pakistan/pakistan-cyclone-phet-losing-intensity-met-office, accessed: 17 Dec 2021

[10] Building Code of Pakistan – seismic provisions 2007, html address: https://www.pec.org.pk/building_code_pakistan.aspx, accessed: 17 Dec 2021

Figure 1: Storm water drainage network

4.2.8   OHS and Welfare Facilities

135. All offices have first aid kits available along with trained staff to manage minor injuries. Staff have the facility and access to health services. Necessary Personal Protective Equipment (PPE) is provided to staff such as rubber gloves to work with electrical equipment, hard hats, vests and hand sanitizers along with masks for protection against Covid-19. PPEs related to handling of cargo at ports are in use at relevant ports. Only dedicated and trained staff with sufficient related experience are allowed to perform repair work.

136. Offices have facilities for social satisfaction of the staff. Kitchen, toilets, mosques, green areas, trees, sitting areas, training halls/rooms, etc. are available in almost all the offices of FBR and at ports. Air conditioning systems are installed in all offices that provide temperature controlled working environment to staff.

4.2.9   Emergency Preparedness and Response

137. Firefighting systems are available that include basic firefighting equipment such as fire extinguishers, fire alarms, sand buckets and water hoses which are available in the majority of offices. Firefighting system also includes awareness of staff on actions in case of fire such as using exit routes to assemble at a safe point. Emergency contact points are displayed at various important places within all offices. Emergency information, safety signs are normally available in all offices providing guidance to staff in case of emergencies. A comprehensive emergency preparedness and response plan is not available that PRRP will develop during the course of implementation of activities. Emergency plan will be developed prior to installation phase and during preparation of site-specific environmental and social management plan (ESMP). The plan will be developed in close coordination with staff of the site concerned.

138. As regards the x-ray based scanners, emergency preparedness plan will be developed in coordination with PNRA which is pre-requisite for licensing process. Detailed emergency plan as well as decommissioning plan will be part of the licensing application that PNRA will verify before issuance of license.

4.2.10   Knowledge and Capacity

139. In-house designated staff of IT Department in each office is available in all offices for dismantling of existing equipment. This existing, trained staff knows the situation of installed equipment and wiring. Therefore, the staff is able to dismantle existing equipment considering the sensitivity of FBR data in the offices. It was noted during stakeholder consultations that existing staff of FBR can ensure data protection and data safety during dismantling activities as well as during designating any equipment as E-waste. Awareness of E-waste handling, transportation and disposal/recycling is lacking among staff in FBR offices. Training topics such as E-waste management, occupational health and safety issues, implementation of mitigation measures, etc. have been identified by the staff.

140. Pakistan Customs has the experience of using and managing the x-ray based scanners. A few scanners are already in place but require replacement similar to the existing ICT equipment. The required knowledge for scanner licensing, use and maintenance exists. Pakistan Customs also has the necessary knowledge with respect to health and safety from x-ray based scanners. Installation of new scanners will require coordination with PNRA for licensing and use of scanners along with development of SOPs based on manufacturer's guidelines/SOPs and PNRA recommendations.

4.3   Physical Resources:

4.3.1   Geology and Topography

141. Despite the geographical spread of project, the area of influence is restricted and therefore, the impacts are localized within the target site boundaries. Offices of FBR as well as sea ports and airports are situated in almost every type of geological setup of Pakistan. Soil conditions differ from office to office but mostly situated in urban areas surrounded by offices and commercial centers.

142. From topographic parameters of physical resources, the FBR offices and ports are located on levelled/flat areas within Government owned premises constructed many years ago. Elevation of land with respect to sea level varies from office to office depending upon its location in a certain topographic area such as in Indus plain, Potohar Plateau, mountain ranges, etc.

4.3.2   Soil

143. The installation of new ICT equipment will be implemented in existing buildings without any new construction or disturbance/impact on soil of any type. The activity of the project concerning disposal of E-waste will be carried out in accordance with E-waste management plan ensuring no impact on soil. Downstream impacts leading to soil contamination attributed to improper e-waste management in informal recycling centers are indirectly attributed to PRRP's project activities.

4.3.3   Air Pollution

144. The non-formal recycling of E-waste in the developing countries like Pakistan contributes to release of toxic emissions and resulting in air pollution. Non-formal sector uses burning process to extract useful items from E-waste. Project's activities related to disposal of E-waste will be properly managed and controlled through E-waste management plan. Therefore, PRRP will avoid to contribute to air emissions.

4.3.4   Hydrology

145. The nature of activities of PRRP indicate that project will not have any impact on hydrology. PRRP will manage its E-wastes through E-waste management plan ensuring that such wastes do not reach non-formal recyclers that burn the wastes and throw the

remainders in to water bodies. With the proper implementation of E-waste management plan, PRRP will avoid risk of polluting water bodies. Installation of scanners at sea ports will have minor civil works component which will be confined to limited space in existing infrastructure at sea ports. Therefore, the civil works will not affect the sea water.

4.3.5 Natural Hazards

146. Pakistan is one of the most disaster-prone countries in South Asia. The country has suffered approximately $18 billion[11] in damages and losses from natural disasters over the past decade.

147. The Fiscal Disaster Risk Assessment Report revealed that nearly 3 million people are affected by disasters in Pakistan each year; the annual economic impact of floods – which affects 77% of all Pakistanis affected by disasters – is estimated between $1.2 billion to $1.8 billion, equivalent to 0.5% to 0.8% of Pakistan's GDP. The analysis also showed that a major flood event, such as the one experienced in 2010, could cause losses in excess of $15 billion – almost 7% of the national GDP.

148. The nature of PRRP activities does not warrant any impact of project on natural hazards i.e. no increase or decrease in frequency and intensity of natural hazards is foreseen because of implementing PRRP.

4.4 Biological Resources

149. Pakistan is rich in biodiversity, particularly in the arid and semi-arid regions which cover almost 80% of the total land area. The biodiversity of Pakistan is seen flourishing in areas outside the settled areas while limited biodiversity is observed in settled areas. This includes both flora and fauna species. The ever-expanding cities have their impacts on biodiversity of Pakistan, but PRRP activities are not supposed to cause any direct impact on flora and fauna of any habitat due to the reason that PRRP activities will be confined in the existing buildings within commercial areas. Further, the E-waste will be managed through E-waste management plan, thereby ensuring no E-waste reaching any non-formal site for burning.

4.5 Socio Economic Resources

150. This section provides the overall baseline for the project which is focused on the key socio-economic parameters surrounding the project locale (where the FBR offices are situated). The project will be implemented nationwide in urban centers (FBR offices) and border control posts (Customs): Islamabad Capital Territory, Provinces of Balochistan, Khyber Pakhtunkhwa, Punjab, Sindh. The baseline is a combination of a province-wise holistic review (where data on key socio-economic indicators is available/published) and a location specific review (derived from primary data collection). The key socio-

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[11] https://blogs.worldbank.org/endpovertyinsouthasia/improving-pakistan-s-fiscal-resilience-natural-disasters
accessed 18 March 2021

economic areas: demographic, socio-economic conditions, infrastructure, land-use, employment and inclusion, digital landscape, particularly gender divide, indigenous people, religion etic are probed to provide a baseline for scoping the social risks and impacts in the later section of the ESMP pertaining to the PRRP project components/activities.

4.5.1 Demographics

151. FBR offices and ports are located across Pakistan embodying a multi-cultural and multi-ethnic work culture. FBR offices and ports are located in the most populous cities of Pakistan such as in Karachi and Lahore, as well as in least populated cities such as in Abbottabad, etc. These cities are located in four provinces, the demographics are mentioned below:

4.5.2 Province-wise-Demography

- *Sindh*
152. According to the 2017 census, the population of Sindh is 47.9 million. The province is home to 22.5% of all Pakistanis. 23 million people in Sindh live in rural areas, while 25 million live in urban areas.[12] Average household size in Sindh is 5.58 persons.[13] The average household size in Sindh is 6.22 persons.[14]

- *Balochistan*
153. The 2017 census counted 12,344,408 total residents of Balochistan, making up 5.8% of the national population.[15] The province has seen a population increase of 88% since the previous 1998 census, revealing an annual growth rate of 3.37%, well above the national average. The majority of Balochistan residents are rural, at 72.5%.[16] The average household size in Balochistan is 7.84 persons.[17]

- *Khyber Pakhtunkhwa*
154. The 2017 census counted 36,117,000 total residents of Khyber Pakhtunkhwa, making up 17% of the national population.[18] The province has a higher annual growth rate than the national average, at 2.9% compared to 2.1%. Average household sizes are large in both

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[12] ESMP for Integrated Literacy and Youth Skills Project. World Bank, 2020. Accessed from:
http://documents1.worldbank.org/curated/en/891881594832373675/pdf/Environmental-and-Social-Management-Framework-ESMP-Pakistan-Integrated-Literacy-and-Skills-Development-for-Youth-Project-P170830.pdf
[13] SMF for Sindh Solar Energy Project. World Bank, 2018. Accessed from: https://ewsdata.rightsindevelopment.org/files/documents/12/WB-P159712_tFsZ4Ac.pdf
[14] Pakistan Household Integrated Economic Survey. Pakistan Bureau of Statistics, 2017. Accessed
from:http://www.pbs.gov.pk/sites/default/files/pslm/publications/hies15-16/write%2015-16-HIES-final.pdf
[15] Balochistan Human Capital Investment Project. World Bank, . Accessed from: http://emis.gob.pk/Uploads/ESMP_BHCIP_Final.pdf
[16] Balochistan Human Capital Investment Project. World Bank, . Accessed from: http://emis.gob.pk/Uploads/ESMP_BHCIP_Final.pdf
[17] Pakistan Household Integrated Economic Survey. Pakistan Bureau of Statistics, 2017. Accessed
from:http://www.pbs.gov.pk/sites/default/files/pslm/publications/hies15-16/write%2015-16-HIES-final.pdf
[18] ESMP for Khyber Pakhtunkhwa Irrigated Agriculture Improvement Project. World Bank, 2019. Accessed from:
http://kp.gov.pk/uploads/2019/04/ESMP_Pub_Disclosure.pdf

urban and rural areas, at 7.6 and 8.1 persons respectively.[19] Khyber Pakhtunkhwa is also home to a large population of Afghan refugees and internally displaced peoples, who are counted in the population statistics as well.

- *Punjab*

155. According to the 2017 census, the population of Punjab is 110 million, which is over half the population of Pakistan. 69.6 million people live rurally, and 40.4 million live in urban areas.[20] The average household size in Punjab is 6.04 persons.[21]

4.5.3   Ethnicity and Language

156. Since FBR offices are located in all the provinces across Pakistan, the staff belong to a variety of ethnic backgrounds with corresponding linguistic and cultural differences.

4.5.4   Literacy and Education

157. It is also important to look at the literacy level in the provinces where FBR offices are located. These literacy rates could be referred to when scoping for social risks pertaining to project component 1 activities associated with increasing the domestic revenue by broadening the tax base, automation, and facilitating compliance.

158. As per the published research there is a direct correlation between the tax literacy and tax compliance[22]. Low literacy levels can impede the individual's ability to fulfil his/her tax obligations. The research established that there is a positive correlation between tax compliance and especially educational levels as a demographic factor. Tax awareness of taxpayers also develops with the increase in the level of education. Therefore, compliance behaviors of taxpayers increase (Otto et al., 1987: 304) with increase in literacy and vice versa.

159. As referred to in section 4.5 (GSMA's mobile gender gap report) that there is also a wider digital divide between men and women internet/ mobile users mainly due to low IT literacy. Thus it is important to consider the digital divide and low IT literacy tax payers trend to extrapolate whether the low IT literacy and digital divide could prevent FBR's clientele especially female/ not so literate tax payers to benefit from the improved tax-returns e-services facilities to be made available under the project.

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[19] ESMP for Khyber Pakhtunkhwa Irrigated Agriculture Improvement Project. World Bank, 2019. Accessed from: http://kp.gov.pk/uploads/2019/04/ESMP_Pub_Disclosure.pdf
[20] ESMP for Integrated Literacy and Youth Skills Project. World Bank, 2020. Accessed from: http://documents1.worldbank.org/curated/en/891881594832373675/pdf/Environmental-and-Social-Management-Framework-ESMP-Pakistan-Integrated-Literacy-and-Skills-Development-for-Youth-Project-P170830.pdf
[21] Pakistan Household Integrated Economic Survey. Pakistan Bureau of Statistics, 2017. Accessed from:http://www.pbs.gov.pk/sites/default/files/pslm/publications/hies15-16/write%20up%2015-16-HIES-final.pdf
[22] TÜREGÜN, G.Ç.G.F.B. and GERÇEK, A., The Importance of Tax Literacy in Tax compliance, suggestions to be developed in the case of country

160. As per the national statistics the female literacy is 46 and male literacy level for the country is 69[23]. The provincial literacy rates are:

- **Sindh:** The adult literacy rate in Sindh is 55%, the second highest rate in the country.[24] The province also has low youth literacy and gender literacy gap of 18%.
- **Balochistan:** Adult literacy in the province is currently 37%.[25] Balochistan also has the second highest gender gap in literacy, at 28%.
- **Khyber Pakhtunkhwa**: Adult literacy rate in Khyber Pakhtunkhwa is 49%, higher only than Balochistan's rate.[26] The province also has the largest literacy gender gap, with a 38% gap between men and women.
- **Punjab**: The adult literacy rate in Punjab is also the highest, at 61%.[27]. As province also has the smallest gender gap, with 82% of men and 75% of women considered literate.

4.5.5   Livelihood and Digital Landscape

161. It is also important to review employment and occupational trends in the provinces where FBR offices are located whilst scoping for social risks pertaining to project component 1 activities associated with increasing the domestic revenue by broadening the tax base and facilitating compliance. This section also examines the overall employment trends, digital literacy, landscape and digital divide in the provinces where FBR offices are situated.

162. The country's economy has three major sectors; the primary sector, which includes agriculture, raw materials, fishing, and hunting, the secondary sector, which is also called the industrial sector and includes manufacturing, and the tertiary sector, which encompasses intangible goods and services, like financial services, tourism, or telecommunications. According to the Pakistan Bureau of statistics report on employment trend 2018, 36.92 percent of the workforce in Pakistan work in the agricultural sector, about a quarter work in industry, and 38.13 percent in the services sector. In Pakistan, agriculture plays an important role in trade and production, and most Pakistanis are employed in the agricultural sector – however, the services sector generates the lion's share of GDP.

163. It is also important to review employment and occupational trends in the provinces where FBR offices are located whilst scoping for social risks pertaining to project component 1 activities associated with increasing the domestic revenue by broadening the tax base and

[23] https://data.worldbank.org/indicator/SE.ADT.LITR.FE.ZS?locations=PK
[24] Pakistan Social & Living Standards Measurement Survey. Pakistan Bureau of Statistics, 2019. Accessed from:
http://www.pbs.gov.pk/sites/default/files//pslm/publications/pslm2018-19/pslm_report_2018-19_national_provincial.pdf
[25] Pakistan Social & Living Standards Measurement Survey. Pakistan Bureau of Statistics, 2019. Accessed from:
http://www.pbs.gov.pk/sites/default/files//pslm/publications/pslm2018-19/pslm_report_2018-19_national_provincial.pdf
[26] Pakistan Social & Living Standards Measurement Survey. Pakistan Bureau of Statistics, 2019. Accessed from:
http://www.pbs.gov.pk/sites/default/files//pslm/publications/pslm2018-19/pslm_report_2018-19_national_provincial.pdf
[27] Pakistan Social & Living Standards Measurement Survey. Pakistan Bureau of Statistics, 2019. Accessed from:
http://www.pbs.gov.pk/sites/default/files//pslm/publications/pslm2018-19/pslm_report_2018-19_national_provincial.pdf

facilitating compliance. This section also looks at the overall employment trends, digital literacy, landscape and digital divide in the provinces where FBR offices are situated. The table below shows the employment and occupational trends in various sectors segregated by gender: [28]

Table 8 Employment Trends of Pakistan

Employment Trends in Pakistan (Indicators)	Male	Female
Labour Participation Ratio	81.1	22.8
Employment to population Ratio	77.2	20.9
Share of industry in total employment	26	16
Share of agriculture in total employment	29.6	66.1
Share of services in total employment	44. 4	17.3
Share of wage and salaries workers in total employment	46	29
Share of own account workers in employment	39.9	20.6
Share of employment in Informal economy	71.5	70.7

164. The province wise employment trends (2017-2018) in different sectors segregated by gender are[29] [30]:

Table 9 Employment Trends in Provinces

Employment Trends in Provinces (Indicators)	KPK		Punjab		Sindh		Baluchistan	
	M[31]	F[32]	M	F	M	F	M	F
Labor Participation Ratio	75.5	13.2	82	29.6	81.9	14	82.5	9.7
Employment to population Ratio	70.5	11.9	77.9	27.3	78.7	12.3	80.2	8.0
Share of industry in total employment	28.2	14	28	17	23	16.2	13.3	14.2

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[28] Pakistan bureau of statistics- employment trends report 2018 Accessed from:
https://www.pbs.gov.pk/sites/default/files//Pakistan%20Employment%20Trend%20%20Reprt%202018%20Final.pdf

[29] Labour Force Survey 2017-18. Pakistan Bureau of Statistics, 2018. Accessed from:
http://www.pbs.gov.pk/sites/default/files//Labour%20Force/publications/lfs2017_18/Annual%20Report%20of%20LFS%202017-18.pdf
[30] Pakistan bureau of statistics- employment trends report 2018 Accessed from:
https://www.pbs.gov.pk/sites/default/files//Pakistan%20Employment%20Trend%20%20Reprt%202018%20Final.pdf
[31] *Male
[32] *Female

Share of agriculture in total employment	24.8	67.9	29	66.3	31.9	64.1	37	63.5
Share of services in total employment	47	18.1	43	16.7	45.1	19.7	49.7	22.2
Share of wage and salaries workers in total employment	48.2	19	44.8	29	51.2	35.7	41.7	23.5
Share of own account workers in employment	39.3	33	41.3	21.1	36.8	10.1	42.2	13.6
Share of employment in Informal economy	78.8	59.1	73.1	74	64.9	61.6	66.9	57

165. Thus the above tables present a snapshot of labor force participation (outside tax bracket) and employment ratio (out of which some population falls within the tax bracket slabs), these, employment trends will better equip the tax administration in designing simple tax appeal / procedures frameworks for different sectors.

4.5.6   Digital Landscape of Pakistan

166. As few activities of the projects aim to enhance the tax base and ensuring the tax compliances through digitization, improving business intelligence tools and e-services facilitation for public. It is important to also look into the overall digital landscape of the country in order to assess the social risks and impacts related to project activities.

167. The digital landscape has grown tremendously in Pakistan with a population of over 200 million people. The country has over 165 million mobile subscribers, 70 million active internet users and 60 million Smartphone users. Internet penetration has increased to 70 per cent in the country, with the introduction of platforms for digital education and literacy services. The digital medium is considered cost-effective with a wider reach which comes with many benefits especially for people from remote areas. Furthermore, the Digital Pakistan Initiative has created hope that the government is making serious efforts to promote digital technology in the country. The project has also undertaken the tenets of digital education project amid Covid-19 literacy transformation framework where the availability of technology and gaps have been addressed. As per the Global System for Mobile Communications report 2016, Pakistan has an emerging mobile industry with approximately 90 million unique mobile subscribers in the country, accounting for 47% of the population.

168. According to an online media report[33] , the statistics on household TV users was recorded as 46.52% (2003) and internet users per 1000 people hiked up to 98.12 % in 2013.About the broadcast audience, Radio Pakistan operates 25 stations nationwide, an

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[33] https://www.nationmaster.com/country-info/profiles/Pakistan/Media

external service and the entertainment-based FM 101 network, aimed at younger listeners recorded in the year 2013.

4.5.7 Women Status in the Tax and Revenue Administration

169. Although inclusion and workplace equality protocols and policies are expected to be ensured in the FBR offices, it is also important to investigate the overall inclusivity dynamics and gender implications of the tax system, which will not only enable us to scope for social risks and impacts pertaining to project activities, but will also help in the tailoring the design of activities (user friendly/ women friendly) aimed at enhancing the tax base and ensuring compliance. This section is focused on aspects of FBR specific gender and inclusion and briefly outline the generic GBV/ VAW challenges the country faces as a whole.

170. Although the FBR follows the Government-wide policy on inclusion of under-represented groups into the workforce, the workforce diversity is low generally in Pakistan and also in FBR. The total share of female staff in FBR's workforce is about 4.5% (total female employees are 926 out of 20,770 working strength). A majority of females are recruited in Grade 16 and below (64% of 926) in both IRS and Customs. However, female representation (as a share of working strength in each grade) is better in grades 17 and above, especially in PCS (see Figure 1). Although as per the organization's HR policy, women and other underrepresent groups can compete for all Government positions, there are no rigorous institutional targets pursued for increasing female workforce participation, in spite of the fact that the Government of Pakistan has a recruitment policy of a 10% quota for women allocated to the public sector[34].
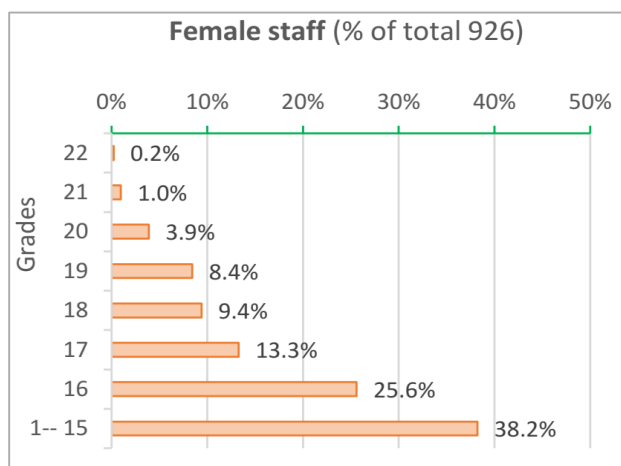
Figure 2: Female staff in FBTR by grade and cadre
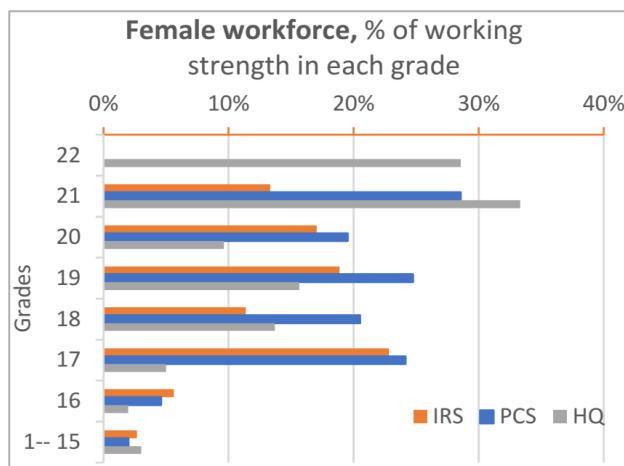
Figure 3: Female Workforce Status in FBR

171. The women in the FBR enjoy a respectful and equal opportunity working environment.

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[34] human resource assessment conducted with the assistance from the World Bank as part of the Stakeholder engagement plan for the project (PRRP),

Women officers are not relocated to under service stations as part of underperformance or punishment as likely in other public sector organizations. There is a wedlock policy in place, under which female officers are posted in the same locations as their husbands (or if unmarried they are stationed in the same city as their parents). Both women and men can make independent decisions in the district offices than the headquarters but are given choice in job placements etc. The organization is women friendly with more women working in the headquarters and urban areas particularly the regional offices. In some offices women are in absolute majority[35].

172. Although FBR is a very women friendly workplace with most of the women workplace equality protocols in place. However, the organization does not have day care facilities in the field formations as well as the urban centers to support working mothers. There are no flexibility options for leave extension for childcare once the 3 month maternity leave period expires[36].

4.5.8 Women Taxpayer's Status and Overall Gender Issues in the Country

173. Women taxpayer numbers/ participation remained really low in the annual income Tax return filing. As per the tax year of 2016, only 4.9% (65225) of the total filers (1.32 million returns) were salaried women who filed returns, while non-salaried women filers were 6.4 % (85278 women filers). The filers' data is available online; however, it is not segregated by the gender. Hence more research and details will be required in the later stages of the project to compile the women tax filers' statistics.[37]

174. Women in Pakistan face socio-cultural barriers that impede their economic participation especially related to gender-based violence, workplace equality and women supportive infrastructure and most importantly literacy, mobility, accessibility, and connectivity related barriers.

175. In Pakistan the status of women differs across classes, rural/urban divide, regions due to uneven socio-economic development and in the tribal and feudal social structures that influences the lives of women and girls across all sectors. The disparity is due to poor service delivery, low public investments, poor incomes, preference given to male education or cultural restrictions (mobility barriers, security concerns, early marriages)[38].

176. Women in the country are also among the poorest and the most vulnerable sections of the society. According to the Global Gender Gap Report 2018, Pakistan is ranked 146 out of 149 countries in women's economic participation and opportunity placing it at the bottom in South Asia. Cases of violence against women are on the rise in Pakistan in

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[35] Women work force observed in Dry Port Mughalpura, Lahore is in majority
[36] Stakeholder Engagement Plan for PRPR 2022-data from HR assessment as part of SEP.
[37] FBR 2016- online portal accessed via https://www.fbr.gov.pk/tax-culture/21136#:~:text=She%20said%20women%20in%20Pakistan,share%20of%20non%2Dsalaried%20women
[38] Tahir, Muhammad. "Domestic Violence against Women in Pakistan and its Solution from an Islamic Perspective: A Critical and Analytical Study." *Available at SSRN 2986723* (2017).

both rural and urban settings. Research conducted by the Pakistan Demographic and Health Survey (PDHS) on ever-married women (between ages 15 to 49) reported that 39% women faced physical abuse and/ or emotional violence. A household survey of 2012 reported that 80% women were the victims of psychological violence; 75% women had faced physical violence, 66% had experienced sexual violence; 47% of ever-pregnant women experienced physical violence during pregnancy[39].

177.   In the previous sections of this baseline, the data related to the employment trends and literacy/ gender gap trends in the country has already been examined. Women workforce participation is 22% in the country[40] and the overall adult female literacy is 46.49%[41]. The low numbers are due to lack of access to safe-transport, social norms, and household responsibilities that prevent women from having the time to work and poor service delivery, affordability issues and other socio-cultural barriers predominantly the patriarchal beliefs/ rigid traditional customs (not allowing women to acquire education by stepping outside the home) in the provinces like KPK and Baluchistan impact literacy and workforce participation. The low workforce participation in industry and services sector could also impact the women taxpayers' numbers. The data also shows that women's participation is highest in the agricultural sector. However, the agricultural sector is part of informal economy and is left out of the tax system overall.

4.5.9   Gender Digital Divide

178.   Pakistan has the highest digital gender divide in the world. According to the GSMA's 'Mobile Gender Gap Report 2019', Pakistan had the widest mobile ownership gender gap, as women were 37 percent less likely than men to own a mobile phone due to economic inequality and patriarchal attitudes.

179.   According to The Inclusive Internet Index 2020, Pakistan fell into the last quartile of countries, overall ranking 76th out of 100 countries (24th out of 26 Asian countries). Besides a low level of digital literacy and poor quality networks, the country also scored poorly in the affordability indicators. Internet access in Pakistan stands at around 35 percent, with 78 million broadband and 76 million mobile internet (3/4G) connections. Unequal access to the internet is a multifaceted issue; there are various reasons such as infrastructure gaps, the rural and urban divide, and economic inequality in Pakistan. Many impoverished regions and far-flung areas of Pakistan don't have access to the internet.

180.   The digital divide can increasingly prevent women from accessing life-enhancing services for education, health, and financial inclusion in a world that has become virtual

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[39] UNDESA, "Guidelines for Producing Statistics on Violence against Women" Statistical
Surveys (2014).
Qayyum K., "Domestic Violence against Women: Prevalence and Men"s Perception in PGRN
Districts of Pakistan" (Rutgers WPF, 2014).
[40] Labor force participation rate, female (% of female population ages 15+) (national estimate) - Pakistan | Data (worldbank.org)
[41] Pakistan - Literacy Rate, Adult Female (% Of Females Ages 15 And Above) - 2022 Data 2023 Forecast 1981-2019 Historical (tradingeconomics.com)

overnight—hence placing them in an information black hole. As education shifts to mostly online platforms, many Pakistani women are left out, which means they will also be more likely to be excluded from the realm of formal employment as well. Consequently, they will stay trapped in informal, less paying—or even non-paying—labor, which will also keep them confined to their less advantaged socio-economic status, while simultaneously adding to their obscurity, invisibility, and health risks.

181. It is a globally established fact that tax compliance is affected by low financial and IT literacy. The taxpayers' education[42] can also be used as key tool to boost the willingness of individuals and businesses to pay tax and could play a significant role in mobilizing the tax revenue thus shaping the country's tax culture. Hence the digital landscape, gender aspects of tax system and gender digital divide existing trends and patterns could have implications on tax compliance and tax base expansion and should be taken into consideration whilst designing the PRRP interventions.

4.5.10 Current Status of FBR on Outreach Programs on IT and Tax Literacy

182. The FBR recognizes the need to inculcate the tax education in all stages of formal or informal learning. It is currently engaged in an extensive taxpayer outreach program to create basic knowledge about tax affairs, awareness about the rights and responsibilities of taxpayers, promote tax literacy and highlight payment of taxes as a national duty. Few outreach programs include running of a dedicated FBR helpline, setting up of a Customer Relationship Management System, publication of taxpayer facilitation brochures and manuals as well as running tax awareness campaign through the media. Also the top management of the FBR are advocating for creating a tax culture and promoting tax literacy that is essential to making informed decisions about tax affairs, effectively manage financial resources, increase incidence of tax compliance, raise awareness about filing of Income Tax returns, whilst also emphasizing the social value of taxes as contributor to socio-economic development of the society[43].

4.5.11 Minorities and differently abled staff

183. Currently, FBR doesn't offer any access facilities to differently abled taxpayers. However most of its staff are civil servants and as per Pakistan Civil Service employment policy there are reservations of 5% job quota for minorities and 2 % for the disabled groups.

4.5.12 Cultural and Physical Heritage

184. The existing FBR offices are located away from any site of cultural or religious importance. The project activities will be confined to FBR offices that are situated away

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[42] https://www.oecd.org/tax/taxpayer-education-is-a-key-tool-to-transform-tax-culture-and-increase-voluntary-compliance.htm

[43] https://www.fbr.gov.pk/tax-culture/21136

from any physical and cultural heritage sites, hence the baseline does not cover any cultural or physical resources in this report.

4.5.13 Social Conflicts – FBR Specific

185. In the recent years[44] in response to the presidential ordinance (Tax Laws Third Amendment Ordinance, 2021 [45]has been imposed to broaden the tax base) and tax reforms introduced by the Government of Pakistan; the FBR has faced frequent friction with multiple traders' association especially the All Pakistan Traders' Association and other medium trader organizations have called for sit ins outside the Federal Board of Revenue (FBR) office in Islamabad to demand the government withdrawal of newly tax enforcements and revenue generation regimes. These sit-ins and protests were due to inaccurate information that created panic and in harmony among the small traders and business associations giving threats to the FBR. The situation was tackled through the intervention of law enforcing agencies to deal with nationwide protests. Dialogues were also held with these associations by top management clearing the misperception in apprehending the tax reforms which were not applicable to small traders but were for larger traders and businesses.

4.5.14 Cyber Attacks and Data Theft

186. In recent years, FBR has also undergone a major menace of data theft due to constant cyber attacking attempts by hackers. Reports[46] highlight that the threat landscape is evolving at a faster pace than the organizations trying to protect themselves. Due to the use of obsolete/ outdated software and hardware. Over time these cyber-attacks have primarily affected the virtual environment of the data center. Mainly, the virtual machines are being attacked and the attackers managed to exploit the weakest link, which is the Hyper-V software by Microsoft Inc. As per the reports[47], the hackers made attempts to break the data rooms and there were also several warnings issued beforehand. Official documents of the bureau have revealed that the FBR system faces approximately an average of 71,000 cyber-attacks in a single month. The published data also highlights that FBR will be carrying out third party audits and will devise a comprehensive strategy and monitoring plan in addition to ICT up-gradation to evolve into a true-data driven digital organization. The reported data also reveals that although initial procurements may protect FBR for the short and medium-term, continued investment in the IT system is required to ensure data security and protection in a sustained manner in the long term.

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[44] Reported in the news from July 2019 till sep 2021

[45] the Government of Pakistan felt the need of introducing amendments in the Tax Laws. These amendments in the tax Laws (Third Amendment) Ordinance, 2021 are primarily directed towards broadening of tax base besides providing concessions to certain sectors. More Details here https://download1.fbr.gov.pk/Docs/20219171992458749TaxLawThirdAmendmentsOrdinance2021.pdf

[46] https://tribune.com.pk/story/2316604/neglect-caused-fbr-cyber-attack
https://www.thecapitaldebates.com/2022/01/cyber-attack-on-fbr-why-hackers-could.html

[47] https://tribune.com.pk/story/2316604/neglect-caused-fbr-cyber-attack
https://www.thecapitaldebates.com/2022/01/cyber-attack-on-fbr-why-hackers-could.html

5 Stakeholder Consultation and Engagement

187. Stakeholder consultation is an integral part of the environmental and social management plan that aims to provide a two-way communication channel between the stakeholders and the project proponents. Stakeholder engagement is critical to the Project's success.

188. Planning effective and sustainable ICT investments requires an understanding of the needs and preferences of stakeholders to ensure ownership and support. Such intervention should proceed after stakeholders have indicated their broad support for it. The purpose of consultation is to ensure that the views, interests and concerns of project stakeholders are taken into account in the assessment of the potential impacts of the project as well as in project decisions, particularly in the design of mitigation measures

189. For PRRP, initial consultations were conducted at the design and proposal submission stage. These consultations informed the project design. At the ESMP development stage, another round of consultations was held with relevant stakeholders to identify their concerns and recommendations. Finally, during project implementation, continual consultations will be held with the direct stakeholders.

5.1 Stakeholder Engagement Plan

190. The Stakeholder Engagement Plan (SEP) of PRRP, developed as a separate document, has identified vulnerable people at risk of marginalization. As per ESS10, it is particularly important to understand project impacts and whether they may disproportionately fall on disadvantaged or vulnerable individuals or groups, who often do not have a voice to express their concerns or understand the impact of a project.

191. During preparation of SEP, consultations were carried out with private sector across the country to identify measures to reduce compliance cost using digital technology. Women's entrepreneur groups in in different cities suggested a risk-based audit system with no direct intervention between the taxpayer and tax collector. This has been incorporated in the design of the risk-based audit system that will be financed from the project. Similarly, private sector requested a unified system to pay sales tax to reduce compliance cost and reduce avenues for corruption. This feedback has been incorporated in the design of the business process re-engineering part of the project.

192. During the development of SEP, a number of consultations were held with various stakeholder groups including Sindh Revenue Board, FBR, Pakistan Business Council, National Database and Registration Authority, Securities and Exchange Commission of Pakistan.

193. Federal Board of Revenue is the main implementing agency and therefore likely to be most impacted by the reform agenda. According to FBR respondents, FBR is envisioning holistic reforms through the PRRP. One of the areas of reform is the automation of FBR processes. According to FBR staff, in practical terms, it should not be a completely paperless system, as full documentation is necessary with regard to case history of an

individual or organization. From the perspective of the FBR staff, access to full documentation files, which are comprehensive and contain the detailed history, is important for processing cases and making informed decisions. FBR cannot work in isolation, as their work is contingent on cooperation and support from other agencies such as the excise and taxation office, National Database and Registration Authority, Capital Development Authority, etc. There is a need to have streamlined systems in place and willingness on the part of all national agencies to engage for seamless data sharing.

194. During development of SEP discussions held with Sindh Revenue Board on coordination with FBR and other operational issues. It was pointed out that the Punjab Revenue Board operates under the Finance Department, the KP Revenue Authority and the Baluchistan Revenue Authority work under the Excise and Taxation department and the Sindh Revenue Board is placed under the Chief Ministers office. As a result of this fragmentation, there is an increased number of return forms, higher compliance costs and difficulties in coordination with FBR. The provincial revenue boards and authorities in other provinces will be consulted during implementation of SEP.

195. Business Associations such as PWMA and PVMA mentioned that there should be a fast-track process- through an online system and less reliance on human resources. In terms of filing taxes, the FBR link is usually down, and there are always software issues. If a payment is made at National Bank, it is usually not reflected in the system.

196. PBC representatives recommended that the project must approach PBC institutionally and form a joint committee which could then review and advise the project, through each of its stages - from preparation/formulation, implementation to monitoring and evaluation. In general, high support and interest is confirmed in the project by the PBC. This will be explored through implementation of SEP.

197. The issue of withholding tax was also highlighted by PBC. Businesses are forced to act as withholding tax agents. The process should be automated and available online so it can be crosschecked by both the FBR as well as the withholding tax agents. Processes should be transparent and consistent and changes in policies, which would impact businesses, should follow a consultative process so that there is buy in from businesses at the outset. For instance, Pakistan Business Council collaborated with tax authorities on several occasions to help shape policy environment and improve tax compliance. But FBR made changes to most of these, without engaging with or holding any discussions with stakeholders when making these changes.

198. According to CSO representatives the biggest obstacle is that there is no institutional mechanism or platform to voice the perspective of the average taxpayers or discuss citizen proposals. The existing ones are not optimally functional, for example, parliamentary committees. FBR should have a regular forum at the provincial and federal levels, which provides an unregulated platform for less influential stakeholders to be heard.

199. The total share of female staff in FBR's workforce is about 4.5% (926 out of 20,770 working strength). Majority of females are recruited in Grade 16 and below (64% of 926) in both IRS and Customs. Although women and other underrepresent groups can compete for all government positions, however, there is no institutional target for increasing female workforce (there is a government-wide quota of 10%).

200. There is a wedlock policy in place, under which female officers are posted in the same locations as their husbands (or if unmarried they are stationed in the same city as their parents) and no female officer is sent out of station as punishment or for other reasons.

201. Another aspect that is important to mention with regard to women employees, is that FBR staff expressed a need for day care facilities in the field formations as well as the urban centers, as that would further support women officers who have to take extended leave for child care once their 3-month maternity leave expires. Sometimes they are not able to continue working if they have young children.

202. Stakeholders also identified the need to form a joint working group to incentivize the system and make the policies/tax collection easier.

203. As outlined in the SEP, individual taxpayers of Pakistan may be represented by civil society organizations such as Sustainable Development Policy Institute (SDPI), The Network for Consumer Protection and Centre for Peace and Development Initiatives (CPDI). Disabled persons by National Council for the Rehabilitation of Disabled Persons (NCRDP); and women taxpayers by National Commission on the Status of Women (NCSW). These groups will be consulted during the SEP implementation.

5.2 Consultation Process

204. Meaningful and substantive engagement requires PRRP to determine who the stakeholders are and understand their needs and expectations for engagement, as well as their priorities and objectives in relation to the Project. This information will then be used to tailor engagement of each type of stakeholder.

205. Project stakeholders are defined as individuals, groups or other entities who:

- are impacted or likely to be impacted directly or indirectly, positively or adversely, by the Project (also known as 'affected parties'); and
- may have an interest in the Project ('interested parties'). They include individuals or groups whose interests may be affected by the Project and who have the potential to influence the Project outcomes in any way.

5.3 Identification and classification of Project Stakeholders

206. Scoping of ESMP included a detailed mapping of the stakeholders. Individuals and groups likely to be affected (direct beneficiaries) were identified. Initial mapping of other interested parties such as other relevant Government agencies, national organizations and private sector businesses/organizations was also completed.

207. After finalizing the list of stakeholders, the ESMP Team developed specific interview template/guides (Annex 7) for each stakeholder. Main project stakeholders include FBR offices (both tax offices and Customs offices) across Pakistan, e-waste handlers in private sector, individual tax payers, small businesses and civil society associations.

208. The range of stakeholders involved in the PRRP i.e., stakeholders likely to be influenced by the PRRP activities or would like to participate in the project will include:

    1. FBR offices across Pakistan related to In-Land Revenue Services (Regional Income Tax Offices and their sub offices in respective region)
    2. FBR offices across Pakistan related to Customs (Model Collectorate of Customs at Regional Level and their sub offices in respective region)
    3. Electronic scrap dealers and associated electronic technicians
    4. E-waste recyclers and E-waste disposal workers
    5. Tax consultants/lawyers in private sector
    6. Individual tax payers
    7. Small businesses
    8. Civil society organizations/bodies

209. Project Stakeholders are classified as primary and secondary stakeholders depending on their involvement in the project interventions. Primary stakeholder means people, groups or institutions directly affected by the project and can influence the project outcome. Secondary stakeholders are the people, groups, or institutions that are indirectly affected by the project and can influence project delivery process.

Table 10: List of Stakeholders

Interested Parties	Affected Parties
FBR IRS Offices	Electronic scrap dealers
FBR Customs Offices	E-waste recyclers
Pak-EPA	E-waste disposal workers
Pakistan Nuclear Regulatory Authority	Tax consultants/lawyers in private sector
Port Qasim, Karachi	Individual tax filers
Jinnah International Airport, Karachi	Small businesses
South Asia Pakistan Terminals (SAPT), Karachi	
FBR Data Center and FBR IT Wing	Civil society associations

210. The stakeholders mentioned above have been consulted during this stage of ESMP development. The stakeholders will also be consulted during project implementation as per the stakeholder engagement plan.

5.4 Stakeholder Consultation/Engagement Methodology

211. The two basic approaches of stakeholder consultation/engagement included meetings and site visits. Meetings provided opportunity of open discussions on PRRP activities while

site visits enabled capturing of existing situation at visited sites to better understand the PRRP impacts and opportunities for improvement.

212. During the development of ESMP, meetings and consultation sessions were held with project stakeholders in Islamabad, Peshawar, Multan and Abbottabad. Sindh and Balochistan provinces consulted through phone calls due to limited movement in Covid-19 situation. PRRP Program Office facilitated the one-on-one meetings with all stakeholders at the federal and provincial level. Face to face consultations held with 8 stakeholders, virtual meetings held with 2 stakeholders, email communications held with 3 stakeholders and meetings on phone calls held with 12 stakeholders.

213. These series of meeting ensured better understanding of the roles of stakeholders and their influences on the project, acquire their inputs, concerns, and suggestions to develop ESMP. The meetings progressed in the following manner:

- A brief project description and presentation of Environmental and Social requirements of the PRRP in line with World Bank requirements were provided to the stakeholders.
- Stakeholders were given the opportunity to raise queries or concerns regarding the Project.
- Queries were responded to, and concerns were documented.

214. In accordance with best practice approaches, the following principles were applied for stakeholder consultation and engagement:

- *Openness and life-cycle approach:* consultations for the interventions will be arranged during the whole lifecycle of the project, carried out in an open manner, free of external manipulation, interference, coercion, or intimidation.
- *Informed participation and feedback:* information provided to and widely distributed among all stakeholders in an appropriate format; opportunities provided for communicating stakeholders' feedback, for analyzing and addressing comments and concerns.
- *Inclusiveness and sensitivity:* stakeholder identification undertaken to support better communication and build effective relationships. The participation process for the ESMP of project is inclusive. All stakeholders at all times encouraged to be involved in the consultation process. Equal access to information is provided to all stakeholders on PRRP. Sensitivity to stakeholders' needs is the key principle underlying the selection of engagement methods.

5.5 Consultation Limitations

215. Due to the prevalent Covid-19 situation in the country, limited visits were conducted to stakeholder's offices in provinces for consultations in reference to this ESMP. Limited Road travel following the Covid-19 SOPs was adopted to reach consulted offices and obtain feedback from stakeholders on ESMP.

216. List of meetings held is attached as Annex-6 with this report. Interview questionnaires for each stakeholder are attached as Annex-7.

5.6 Consultation Findings/Concerns

217. Consultations were held with stakeholders identified in table 10 above. Consultations were held during April and May 2021. Another round of consultations was held in December 2021 with regards to x-ray-based scanners. Besides consultations with stakeholders were held during preparation of stakeholder engagement plan. In view of project scope and planned activities, the stakeholders consulted did not express any major environmental or social concern for this project. Project has the scope to dismantle existing IT equipment, install new equipment, control x-ray exposure, and ensure proper E-waste disposal. Dismantling and installation of equipment will be performed in existing buildings where equipment (although quite old) is already in use and basic infrastructure already exists. Minor improvements such as placing sheets on roof will be required for proper and safe installation of new equipment. FBR offices are located within commercial areas therefore, the project does not pose any major environmental implications. The following table presents the findings/concerns of the consultation process. Pictures taken during such consultations and visits to FBR offices are provided in Annex 1:

Table 11: Stakeholder Concerns

Stakeholder consulted	Concerns/suggestions	Response
Regional Tax Office, Peshawar	Staff at RTO Peshawar uses decade's old IT equipment. The provision of new equipment must be started as soon as possible.	PRRP PMU is making all efforts to ensure provision of new equipment at the earliest.
	RTO Peshawar requested for new IT equipment for which licensed Antivirus should be provided.	Licensed Antivirus is normally part of package. PMU will further look into this provision during procurement of equipment and antivirus software.
	Dismantling and installation activities will disrupt the services to tax payers. Therefore, timing for such activities should be decided such as after office hours or on off days.	Each office will be given the opportunity to decide for timing of dismantling and installation activities.
	Network cabling and wiring to be given due consideration for quality of product and proper installation.	Network cabling and wiring to be installed properly by the contractors in the presence of staff of RTO. Therefore, the technical staff of RTO will play a key role in this regard.
	Existing staff is able to handle E-waste from collection to temporary storage. Training on E-waste management may be provided to staff.	PMU will develop and implement a training program which will include topic on E-waste management best practices.
	RTO office lacks proper E-waste storage area. Discarded goods such as printers, copiers, power backup	A recommendation will be made in the ESMP for provision of storage area for temporary storage of E-waste.

Stakeholder consulted	Concerns/suggestions	Response
	devices, CPUs, etc. are stored in open although covered with sheets.	
	E-waste is identified after the useful life of equipment ends or IT staff of office renders any equipment not fit for further use. In such cases data is received and data safety is assured by IT staff. E-waste and general wastes are stored at common place. E-waste along with other scrap is handed over to scrap dealers through auction. There is no concern of the office once the scrap is handed over to scrap dealer regarding proper disposal of E-waste. PRRP may guide in this regard.	Discussed provisions of control over scrap dealer for the disposal/ recycling of E-waste through certain provisions in the bidding document/agreement.
	Training on communications and interaction skills may also be made part of the training program. Women will be given equal opportunity for training.	The topic will be considered during the development of training program.
	No negative impact predicted on private tax consultants and lawyers as the project will also result in an increased number of taxpayers and tax matters always require expert opinion.	Private tax consultants and lawyers will be consulted during the process to ensure if they will not be affected by the project activities.
Model Collectorate of Customs (MCC), Peshawar	The major concern expressed is the discontinuation of services due to dismantling and installation activities. Suggested to utilize off days for such activities.	Each office will be given the opportunity to decide on the timing of dismantling and installation activities.
	Equipment is still in operation although its useful life has already exceeded. Systems may collapse at any time. Therefore, new equipment to be provided on a priority basis.	PMU is putting all efforts into providing new equipment at the earliest.
	Only need-based equipment to be provided. Women employees will be given equal opportunity to get new equipment.	PMU will ensure only need based equipment is provided to each office.
	MCC uses auction method to dispose-off every type of scrap including E-waste if any.	It is suggested to remove hard drives and keep those in store ensuring no release/loss of data of tax payers.
Regional Tax Office, Multan	Additional Commissioner pointed out some improvements in the software for cross checking and verification of data input by the tax payers and filers. Current software lacks such provisions. Software may be improved step-wise for cross checking and submission of proof documents.	The suggestion will be communicated to the Procurement Team of PRAL for possible action.
	Project activities for dismantling and installation of new equipment must be completed within timeframe so that the	PMU is initiating project activities with the target to complete dismantling and installation within timeframe.

Stakeholder consulted	Concerns/suggestions	Response
	project should not lose the interest of stakeholders	
	Equipment with RTO is not enough for all to use. Some staff members use their personal equipment which poses the risk of data loss. Appropriate quantity of equipment should be provided for all to use properly.	Equipment quantification and appropriateness exercise is being completed by the PMU.
	E-waste generation will depend upon quantity of new equipment provided and quantity of old equipment rendered useless.	Majority of the dismantled equipment will be reused at sub offices who already face equipment shortages. Therefore, technical staff of RTO to develop inventories during dismantling and installation activities for final discarded E-waste and useful equipment to be provided to sub offices.
	Discarded goods such as printers, copiers, CPUs, etc. are found lying in galleries and any available space. A dedicated space is required to store E-waste.	ESMP will suggest provision of dedicated space for temporary storage of E-waste.
	Additional Commissioner suggested topics for training program including health and Safety, Kitchen and Toilet hygiene.	The training program will include topic on Occupational Health and Safety covering these issues.
	Additional Commissioner pointed out that RTO faces dust issues from outside of the building that enters offices through windows and can be observed on window glass. The dust reaches record rooms and accumulates on files. Window design does not favor regular cleaning.	The ESMP of ESMP will provide measures for dust control.
	Additional Commissioner further informed that majority of officers use window blinds to stop sunlight which reduces production of Vitamin D in the human bodies. As such many people claim joint pains.	The issue will be covered in the training on Occupational Health and Safety.
	Conversations among staff sometimes becomes nuisance and affects office decorum.	Training program will cover measures on control over noise in offices.
	Server room and network cabling in the roof ceilings faces rodent (mice) intrusion impacts. Rodent intrusion resulted in fire incidents in the past through wire damage and short circuiting. Dead mice also pose environmental and health issues inside the building. Damage to wires and cables would result in system failures and disruption of services. Measures to	The ESMP will provide measures for control of rodent intrusion i.e., mitigation measures for impacts due to rodent intrusion.

Stakeholder consulted	Concerns/suggestions	Response
	be in pace for mice control in the building.	
	Air conditioner in server room is out of order while a fan is being used to control the temperature in server room. Provision may be made for repair of damaged air conditioner or installation of new air conditioner.	ESMP of the ESMP will suggest measures in this regard.
Model Collectorate of Customs (MCC), Multan	The Deputy Collector discussed the legal implications of the project activities concerning E-waste management. He inquired about the applicable law in this regard.	It was informed that current legal provisions in Pakistan does not cover E-waste as a whole. Rather hazardous waste management rules exist that too mostly cover chemicals, toxic metals, hospital wastes, radioactive wastes, etc. E-waste will be generated in a minor quantity at each office which will be handed as per the EWMP for proper disposal of final E-waste. Monitoring to be done for disposal activities of E-waste by the Contractors.
	The dismantled equipment is mostly repaired/refurbished and sent to sub offices for use. Therefore, less than 10 % of dismantled equipment will be expected to become E-waste.	More and more equipment refurbished will be helpful in reducing E-waste generation and disposal. Inventory in this regard will be required.
	Every floor in the building has independent networking system with server, and connected with other floors through fiber. Such setup ensures continuity of services on different floors if system fails at one floor. Wastes are stored in a room without any proper segregation.	It is better to organize the stores so that waste segregation and quantification is possible for development of inventories.
Regional Tax Office, Abbottabad	The equipment in use at RTO and sub offices is decade old and may collapse at any time. The collapse of system could result in data loss and disruption of services to tax payers. New equipment to be provided as soon as possible.	PMU is putting all efforts to provide new equipment at the earliest.
	RTO Abbottabad has yet not discarded computers for disposal. Some electronic equipment such as network switches are stored as discarded E-waste but no auction held so far. Advice from PMU may help proper disposal of E-waste.	It was informed that an E-waste management plan will be developed and shared with RTO for disposal of E-waste.
	Replacement of computers will disrupt services. Replacement of computers will be done one by one ensuring limited disruption to services. Server replacement requires 1 to 2 days. Therefore, at first new server will be	The suggestion is useful. It was further suggested to start with the system that is not critical and used less so as to ensure quick installation practices. Staff to guide contractor in this regard.

Stakeholder consulted	Concerns/suggestions	Response
	configured first and quickly installed replacing the old one.	
	Training may be provided on communication and negotiation skills.	The topic will be considered during development of training program if appropriate for inclusion.
	Staff lack social services such as sitting room during break, cafeteria, smoking area, etc. Thus, psychological stress prevails. Project may look into these social issues.	ESMP will suggest measures through recommendations for the provision of such services.
Regional Tax Office-1, Karachi	Replacement of equipment will disrupt services for a short duration. E-waste will be generated but will be quantified after dismantling. Capacity exists for dismantling of equipment. Licensed software will be required with systems. Servers and networking equipment should have their racks as part of the package. Training to be provided on e-waste management.	Procurement Specialist to look into the licensed software issues. Training in e-waste management will be provided as per the training plan.
Regional Tax Office, Quetta	Dismantling and installation will result in disruption of services for a short duration. E-waste may be generated but will be assessed during dismantling. Capacity exists for dismantling of equipment. Licensed software will be required with systems.	No response required.
FBR House (Headquarters), Data Centre, Islamabad	Staff have the capacity to dismantle equipment efficiently. Existing equipment installed in well maintained conditions.	No response required.
Port Qasim Authorities, Karachi	Staff has the experience of operation and maintenance of x-ray-based scanners. Port authorities are aware of the PNRA regulations on licensing and use of x-ray-based scanners. Staff is willing to develop SOPs for radiation protection in light of manufacturer's guidelines and PNRA recommendations. SOPs for existing scanners are already available that can be used for SOPs for using new scanners.	No response required.
Pakistan Customs – Pakistan Single Window project	The port authorities are well aware of PNRA requirements. Pakistan Customs does not see any major environmental issue with new x-ray-based scanners. Pakistan Customs is ready to develop SOPs in	Efforts are being made to incorporate practicable mitigation measures in the ESMP. PMU is making efforts to build the capacity of all stakeholders in

Stakeholder consulted	Concerns/suggestions	Response
	coordination with manufacturer's guidelines and PNRA suggestions. Pakistan Customs identified lack of technical expertise on environmental mitigations and their implementation. Pakistan Customs requested for inclusion of implementable measures in ESMP.	learning and implementation of ESMP recommendations.
Jinnah International Airport, Karachi	Airport cargo handling staff informed that visit of World Bank team was held in November 2021 regarding the scanning equipment required for cargo scanning. Staff has intimated that 3 options for location of scanners are available out of which the best suited will be finalized depending upon the various factors including size, type and space requirements along with minimal disturbance to normal cargo handling. Minor civil works will be carried out to prepare platform for the scanners. Cargo area has alternate arrangements in place, such as space, for cargo handling during civil works. A scanner is already in use at the airport for cargo scanning. SOPs are available for existing scanners. SOPs for new scanners will be developed as per the requirements of PNRA and manufacturer's guidelines.	No response required.
South Asia Pakistan Terminals (SAPT)	X-ray based scanners are known for their safety with regards to radiation they emit. The impact is not serious. Overall environmental impacts will be minimal as no new land will be acquired or developed. Only minor civil works for installation of scanners will be carried out. Type of scanners are yet not finalized so that guidelines may be developed at early stage. PNRA to be consulted for import and licensing of scanners. No disturbance expected to routine operations at ports.	No response required.
Tax Consultants/Lawyers, F-8, Islamabad. Tax consulting companies	Tax consultants do not reply solely on services to tax payers for filing of income or other taxes. Rather, this contributes a little in the total earning which is not even regular every year. It fluctuates every year. Our main services are litigations on tax issues. Although experts in tax related matters, the online systems are even complicated for these consultants. Sometimes and with some specific client they also have difficulties in	Government through FBR is making efforts to increase the tax base through inclusion of more tax payers in the taxation system. Numbers are increasing on a yearly basis. This will positively impact on the services of tax consultants.

Stakeholder consulted	Concerns/suggestions	Response
	filling out the online forms. Individuals want to avoid these situations and difficulties. PRRP may affect tax consultants if new systems provide ease of filing tax returns provided that number of taxpayers remains the same i.e., no additional taxpayers brought into the system. If new taxpayers are added into the system, then PRRP may not affect their services instead, clients may increase to some extent.	
Individual taxpayers and tax return filers	Tax filing system is complicated for individual taxpayers and return filers. Salaried individuals prefer tax consultants so as to be safe from any actions by FBR or their employers. It is quite difficult to say that individual taxpayers will stop using the services of tax consultants as tax related matters have legal requirements and as such people avoid any mistake in using FBR web interface at their own.	No response required.

5.7   Life Cycle of E-Waste from FBR Offices

218.   Based on field visits and discussion with staff in FBR offices, following life cycle of e-waste in FBR offices has been identified.
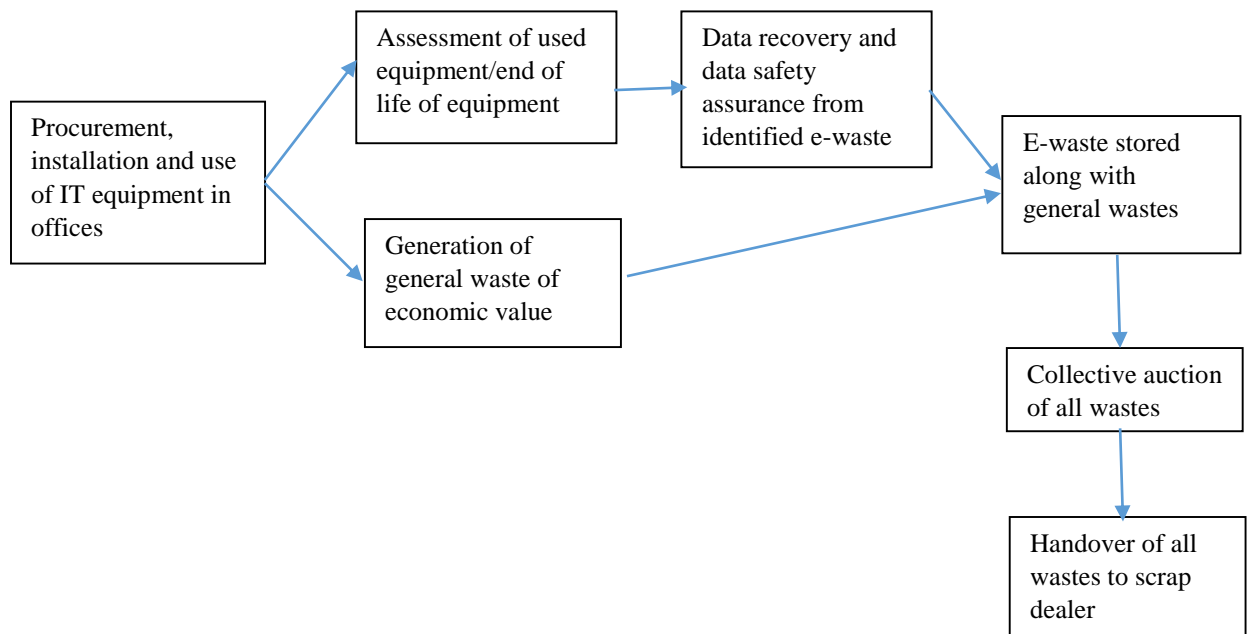
Figure 4: Life Cycle of E-waste in FBR Offices

5.8 Consultations with Pakistan Environmental Protection Agency (Pak-EPA)

219. At federal level the concerned regulatory body on Environmental issues in Pakistan is Pak-EPA (also known as Federal EPA) which has the mandate to develop rules and regulations on environmental issues of concern at national level. Once rules and regulations have been approved, then Provincial EPAs develop their own similar rules and regulations based on the approved rules at Federal level.

220. A meeting was held with Deputy Director at Pak-EPA and, Senior Lab Assistant at Pak-EPA on 21 May, 2021 wherein discussion on E-waste management was held. Pak-EPA informed that E-waste management rules are under process and a draft has been developed which is under validation process at Pak-EPA. The draft once finalized and validated, will go through the approval process which will take considerable time. Currently, Environmental Legislation in Pakistan lacks rules and regulations on E-waste management and disposal. It was informed that Pak-EPA too deals with its E-waste as being managed by other Government Departments. The usual process in Government Departments including FBR offices is handing over to scrap dealers through auction. In such a way there is no control over final disposal/recycling of E-waste once it is auctioned. Therefore, PRRP activities will not be affected by any Environmental Legislation concerning E-waste. This also warrants that no such approval will be required from Pak-EPA or any provincial EPA for E-waste disposal. Nevertheless, the PRRP EWMP will provide means for proper E-waste recycling/disposal mechanism.

5.9 Consultations with Pakistan Nuclear Regulatory Authority

221. PNRA deals with radiation safety for workers, environment and the general public. Safety requirements are covered in the PNRA regulations. Safety guidelines are available in the regulations that PNRA requires radiation users to follow. PNRA does not deal with operational guidelines of any equipment rather safety aspects are covered in the PNRA regulations. Radiation users such as those using vehicle/container scanners based on x-rays have to follow the operational guidelines of manufacturer. In this way the operator follows the operational documents of manufacturer while manufacturer provides printed manuals and training to operators.

222. According to PNRA Regulation PAK/908 (Rev.1) scanner users will have to obtain two types of licenses from PNRA i.e., license to acquire x-ray-based scanners and another license to operate the scanners. Port Qasim Authorities will be required to coordinate with PNRA's regional office in Karachi to obtain license to acquire scanners. Supplier will install the scanners, perform test runs, ensures quality control and provide certificate of proper operation. PNRA will also ensure the quality assurance and quality control aspects of the scanners and provides registration and license to use the scanners. PNRA will continue to check the quality controls during operational phase as and when deemed necessary.

223. According to PNRA, radiation monitoring is required for those facilities and technology that use radioactive materials. X-ray based devices produce x-rays only when energized.

Therefore, x-ray-based scanners will not be monitored by PNRA on a regular basis. Nevertheless, quality controls will be checked by PNRA as described above.

224. At the time of application for issuance of license, PNRA provides clarification in written to applicants on applicable regulations. Port Authorities will be required to follow the PNRA's template for development of radiation protection plan and radiation emergency plan. Guidelines are also available for development of decommissioning plan. PNRA provides guidance to applicants at each step.

5.10 Consultations with Secondary Stakeholders and Other Interested Parties

225. Besides FBR offices, consultations were held with other interested parties to the project. The outcome of consultations is presented in the following table:

Table 12: Consultation with Secondary Stakeholders

Stakeholder consulted	Consultation outcome
Scrap Dealer, Scrapyard, Bilal Town, Kakul Road, Abbottabad	The discussion point with Scrapyard owner was the E-waste from various offices. Scrap dealer informed that his scrapyard receives scrap of all types through scavengers and sometimes he himself participates in auctions to buy scrap from different offices. The scrap thus contains E-waste as well but in very low quantity. E-waste is not sent to disposal sites as it has some useful components. He informed that local Electronics Technicians visit his scrapyard regularly and take away the useful parts and components of E-waste such as toners, components on circuit boards, monitor, etc. At the end only broken plastic and glass monitors are left for final disposal that he sends to recyclers in Punjab who use scrap plastic and glass for manufacturing of products. Being a small scrapyard owner, the owner is interested to take part in auction of E-waste from PRRP targeted offices in the city.
Scrap Store, Misri Shah, Lahore	The Scrap Store receives mainly scrap containers from import business. Every type of scrap container reaches this store. Containers also bring E-waste majority of which contains useful items (such as toners, keyboards, CPUs, monitors, scanners, etc.) that need little refurbishment or simply cleaning. Therefore, local electronics shops dealing with used electronic goods such as computers sort out the scrap and segregate useful items and take away those useful items. Similarly, technicians repair service personnel also take away materials out of E-waste. Plastics and glass from E-waste is sent to recyclers for manufacturing of different products such as baskets, bath accessories, plastic containers boxes, etc. At the end only about 10 to 15% of waste is left which recyclers collect for obtaining metals from the waste at their own facilities. Occasionally, scrap from different offices is received through auctions which also contains E-waste but in very minor quantity. There is a setup of scrapyards in different cities that collect scrap through scavengers from every corner of city and store that scrap temporarily at a local scrapyard. From there the scrap reaches big scrap merchants in bigger cities such as in Lahore. This scrap contains E-waste from both offices and from houses such as TV, electronic goods, etc. As PRRP E-waste will be generated in small quantities in different cities, it will not be feasible for big dealers such as the Scrap Store to take part in direct auctions.
Al Meezan Scrap Traders, Pakistan Mint,	The business pattern is similar to the Scrap Store as described above with only difference that this business relies only on scrap from within the country. This

Baghbanpura, Lahore, Pakistan	business is active in participating auctions and buys any quantity of scrap including E-waste such as dead computers, monitors, LCDs, computer scrap, batteries, hard drives, graphic cards, even casings, etc. The business itself does not dispose-off final E-waste rather metal, glass and plastic recyclers collect leftover waste from this facility. Majority of its E-waste finds its way into the refurbishment shops. The business will be interested in E-waste from PRRP but within its geographical coverage of Lahore. This means a very limited quantity of wastes will be taken away by this business.
Scrap Zone, Sher Shah, Karachi	Consultation made through phone call. It is noted that the pattern of scrap business at Scrap Zone is similar to Al Meezan Scrap Traders as described above. The owner of Scrap Zone confirmed that his business is not involved in illegal E-waste disposal such as burning for extraction of copper from wires, etc. The owner is ready to offer services for collection and removal of scrap including E-waste from PRRP activities.
Scrap Wala, Sher Shah, Karachi	Consultation conducted through phone call. This scrap business relies on scrap from within the cities collected by scavengers. The business also deals with collection of scrap from offices such as through auctions. The scrap collected therefore, also contains E-waste which is mostly recycled by electronics technicians as mentioned above. Scrap Wala claimed that it is not involved in illegal E-waste disposal. The owner expressed interest in offering services for collection and removal of scrap including E-waste from PRRP activities.
Kabaarh House, F-12, Islamabad	This business works in a very limited space in F-12, Islamabad. It receives scrap through scavengers from all over Islamabad including E-waste such as computers, printers, TV, etc. local Electronics Technicians visit his scrapyard regularly and take away the useful parts and components of E-waste such as toners, components on circuit boards, monitor, etc. At the end only broken plastic and glass monitors are left for final disposal that he sends to recyclers in Punjab who use scrap plastic and glass for manufacturing of products. The owner is willing to take part in collection and removal of scrap including E-waste from PRRP activities.
E-waste Recyclers/Disposal Workers, Lyari, Karachi	During consultation with these workers after obtaining their contacts through scrap dealers in Sher Shah, Karachi, it was found that: a. These workers work on two systems i.e., some buy discarded scrap from scrap dealers to extract useful materials at this site and sell extracted materials to earn profits. While others are employed workers on daily wages when big scrap dealers in Karachi give them task to extract valuables from scrap. b. The daily wages range between PKR 400 to 600 depending upon the workload. Sometimes workers have to work for more than 12 hours a day. c. Burning is carried out mainly for extracting copper from wires. Burning is applied only if the wires are damaged so much so that they are not able to be used again somewhere. Burning produces toxic fumes that cause asthma to the workers. d. Workers remove parts from the circuit boards manually and collect them in bags that they handover to the scrap dealers for onward transportation to recyclers. Leftover circuit boards are also managed the similar way. Acid dipping is usually avoided. Burning of circuit boards is also practiced for extraction of metals. e. There are no unions, no freedom of association and workers have no right to put forward their demands. f. Workers did not complain about any discrimination. g. No protective gear is provided to the workers such as gas masks. Workers use their own cloth pieces to cover their nose during work.

6   Environmental and Social Risks, Impacts and Mitigation

226. The PRRP activities of concern from environmental and social perspectives are related to replacement of used equipment and minor constructions involving excavation, construction of foundation and base for installation of scanners. These activities involve electrical works i.e., dismantling and installation of ICT equipment that will result in some environmental and social impacts.

227. This chapter identifies an analysis of alternatives and potential environmental and social impacts of the project that may arise from the project activities.

6.1   Alternative analysis

6.1.1   Comparison of To-do or Not-to-do the project

228. For this project, the option of "To-do" and the option of "Not-to-do/business as usual" are both taken into consideration. The option of Not-to-do would not give rise to environmental and social impact in that there is no phase of dismantling and installation of electronic components, and the option of To-do will bring certain environmental and social impact, which shall be avoided and reduced by appropriate environmental and social protection measures in accordance with mitigation hierarchy. The environmental impact during the installation period is temporary, while the project implementation and operation will bring long-term social and economic benefits. The major issue with the To-do project is E-waste which, if not handled and disposed-off properly, can threaten the environment, health, and safety of workers in the offices as well as community involved in informal recycling and disposal industry. When effectively managed and recycled, this e-waste will yield another round of benefits for recycling industry in Pakistan and would create job opportunities as well as generating cheaper raw material for allied industry. Proper E-waste management through an E-waste management plan will provide a model for E-waste management in Pakistan.

229. The proposed inspection system based on x-ray scanners at the ports will allow the image operators to distinguish the type of goods and perform verification of goods for revenue collection, detection of restricted and smuggled goods and detection of prohibited goods. Use of x-ray radiation based scanners will add to the volume of revenue collection of the country thereby providing the economic benefits.

230. Therefore, from the perspective of society, economy and environment, the option of To-do is better than the option of Not-to-do, so the necessity of the project implementation is proven.

6.1.2   Alternative selection of sites

231. The project can be implemented at existing sites of FBR where similar electronic equipment is already in use or can be implemented at new locations where construction will be involved. New constructions at new locations mean moderate to severe

environmental impacts that will employ higher project costs. Instead of implementing the project at new sites, the project activities i.e., dismantling of existing hardware (electronic components) and installation of new hardware will take place in existing infrastructures at different locations. Therefore, environmental impacts will be limited to existing infrastructure, without involving new construction and hence, having no impacts on natural eco-systems due to civil works.

232. Various sites for installation of x-ray-based scanners have been proposed including the sites within the existing scanning infrastructure line as well as at other locations that might involve land acquisition. The existing infrastructure has enough space and best suited locations for installation of new scanners that the routine cargo handling will not be affected/disturbed during installation of new scanners. The existing sites will be cost effective too.

233. Therefore, implementing the project at existing locations already proposed is better than the option of new sites in all aspects such as social impact, environmental protection, space utilization, installation conditions, health and safety, and so on.

6.1.3 Alternative selection of Technologies

234. The FBR's main IT systems—the Inland Revenue Information System (IRIS) for income tax, the STRIVE system for GST, and the WeBOC system for Customs—have automated some business processes, such as filing of tax returns and goods declarations (GDs). However, these systems do not share data and they lack important functionalities, such as tracking of tax arrears or a transit module (WeBOC). The FBR therefore needs to develop the ICT infrastructure and technical skills to integrate and analyze large amounts of data with adequate data security. ICT investments in simplified and automated business processes will generate efficiency gains by enabling a transition to paperless administration, real-time communications with FBR field offices, and more e-services for taxpayers.

235. The existing hardware and software infrastructure of FBR, which was purchased under the Tax Administration and Reforms Project (TARP) [48]project completed in 2011 has reached its end-of-life and is mostly obsolete, putting FBR operations at significant risk and could result in risks of critical system failure and disruption of operations in case of the equipment damage, network failures, or any natural disaster. This equipment needs to be replaced with more sophisticated hardware and software to support an active-active virtual private cloud solution for the FBR's datacenters. There have been major changes in technology in recent years. Special emphasis has been laid on the security of Data, and in the current situation, the primary focus should be on improving the security of the systems and protection of taxpayer's data.

236. In such a situation FBR has to either continue the existing practices using obsolete technology or adopt a paper based old system of tax records or opt for new technologies

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[48] TARP: World Bank funded project approved on December 7, 2004 and closed on December 31, 2011. https://projects.worldbank.org/en/projects-operations/project-detail/P077306

ensuring effectiveness in terms of cost as well as productivity. Existing ICT equipment cannot be relied upon any longer while paper-based systems are never a suitable option in the digital era. Considering the importance of new ICT technologies, implementation of PRRP becomes more favorable and sustainable. Further technological alternatives among the available options such as alternative specifications and equipment providers ensuring product quality and energy conservation coupled with least E-waste generation, will be assessed during procurement stages of the PRRP.

237. With regards to technologies, the scanners in use worldwide are based on x-ray scanning. Other radioactive based scanners such as gamma ray scanners are not commonly used for commercial cargo, rather the radioactive based scanning devices are used mainly in medical diagnosis and treatments. Therefore, x-ray-based cargo scanners are highly suitable for PRRP. It is expected that the NII selected technology will enhance the PCS productivity by simplifying and strengthening the physical inspection procedures as the NII technology will support the PCS assessment officers on deciding whether additional physical inspections will be required. The high-quality imagines and proper trained customs officers will support those decisions in a way of reducing the physical and documentary inspections. Therefore, a reduction on the time release of goods will happen.

6.2 Environmental Impacts

238. Potential environmental impacts from PRRP may be classified as:

- *Direct Impacts* – i.e., those directly due to the project itself such as waste generation and safety issues
- *Indirect Impacts* – i.e., those resulting from activities prompted by the project, but not directly attributable to it. The disposal of E-waste, for example, has an indirect impact of increasing air pollution and occupational as well as community health and safety as a part of informal e-waste recycling, if not managed properly by the waste contractors.

239. A brief qualitative description of each impact with related activity and the affected environment is presented in the following sections. A general quantification or extent of socio-environmental issues has also been done. The term "Environmental Impact" or simply "Impact" includes the negative, adverse or harmful (denoted by "-ve" sign) as well as positive, desirable or beneficial impacts (denoted by "+ve" sign) of the project intervention. Prediction of impacts of a proposed activity is based on available information; however, the significance of these impacts involves value judgment. An approach called significance matrix[49] is utilized for this purpose as discussed below. The nature of the impacts may be categorized in terms of:

Direction   -   Positive or Negative
Duration   -   Long or Short Term

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[49] Environmental Assessment Handbook: Scottish Natural Heritage, 2005. http://www.snh.org.uk/publications/on-line/heritagemanagement/EIA/d.8.shtml

Location   -   Direct or Indirect
Extent   -   Wide or Local

240. Impact significance depends not only on the magnitude of the impact but also on the sensitivity of the receptor. The more sensitive the receptor with greater magnitude of change, the greater will be the significance of the impact of that change.

241. For this ESMP, the approach presented in Table 13 is utilized for evaluating the significance of the impacts. In this approach the magnitude of change is combined with the sensitivity of the receptor to evaluate the significance of the impact. Environmental issues with "*moderate*" or "*substantial*" significance would be recommended to provide mitigation measures.

Table 13: Impact Significance Matrix

Sensitivity of Receptor	Magnitude of Change	Significance of Impact
High	High	Substantial/High
High	Medium	
Medium	High	
High	Low	Moderate/Medium
Medium	Medium	
Low	High	
Medium	Low	Slight/Low
Low	Medium	
Low	Low	
High/Medium/Low	No Change	No Change
High: Low capacity of the receptor to accommodate proposed form of change. Permanent irreversible damage or covering large geographical area. **Medium:** Receptor has some tolerance of the proposed change subject to design and mitigation etc. Reversible damage, limited geographical spread and can be easily mitigated by implementation of appropriate mitigation measures. **Low:** Receptor is tolerant of the proposed change subject to design and mitigation etc. Minor damage, short duration and confined to a specific area.		

242. Sub-project activities are categorized under the five heads, which are:

- ✓ Procurement of new equipment
- ✓ Dismantling of used equipment
- ✓ Installation of new equipment
- ✓ Operation
- ✓ Final end-of-life disposal of equipment

243. These stated activities are to be screened, identified and evaluated on the impacts, nature, extent, duration, scale and other parameters are to be studied along with conditions of the environmental receptors. Mitigation measures are based on the magnitude of the impact,

sensitivity and behavior of the environmental receptors at the sub-project sites and, regulatory requirements using best management practices. The impact assessment matrix of project interventions (procurement, dismantling, installation, E-waste generation and operations phase is given in below table.

Table 14: Potential Environmental Impacts (Prior Mitigation)

Impacts on		Project Interventions with physical impacts on Environment						
		Procurement of new IT equipment	Dismantling of used IT equipment	Installation of new IT equipment	Generation & disposal of E-waste as well as other wastes	Operation of new IT equipment	Use of x-ray based scanner	Final end-of-life disposal of equipment
Physical Environment	Soil	-	-	-	M-	-	-	M-
	Geology & Topography	-	-	-	L-	-	-	L-
	Land use	-	-	-	M-	-	-	-
	Ambient Air Quality	-	M-	L-	M-	M-	-	H-
	Surface Water Quality	-	-	-	M-	-	-	M-
	Groundwater Quality	-	-	-	M-	-	-	M
	Water/ Electricity /Renewable Eng.	-	-	L-	-	M+	M+	-
	Aesthetics	-	L-	M+	M-	M+	-	L-
	Ambient Noise level	-	L-	L-	-	L-	-	-
	Electromagnetic and other radiation	-	-	-	-	L-	M-	-
	Climate and climate change	-	-	-	M-	-	-	-
Biotic Environment	Flora	-	-	-	L-	-	-	L-
	Fauna	-	-	-	L-	-	-	L-
	Biodiversity / Ecology	-	-	-	L-	-	-	L-
Social Enviro	Traffic	L-	-	-		-	L--	-
	Public	-	-	-	M-	-	M-	M-

Impacts on	Project Interventions with physical impacts on Environment						
	Procurement of new IT equipment	Dismantling of used IT equipment	Installation of new IT equipment	Generation & disposal of E-waste as well as other wastes	Operation of new IT equipment	Use of x-ray based scanner	Final end-of-life disposal of equipment
Health, Safety and security							
Health and Safety of Workers	-	L-	-	M-	-	M-	H-
Drinking Water	-	-	-	M-	-	-	L-
Waste Management	L-	-	-	M-	-	-	M-
Cultural/religious and Archaeological resources	-	-	-	L-	-	-	-

H-	High Negative Impact;	H+	High Positive Impact;
M-	Moderate Negative Impact;	M+	Moderate Positive Impact;
L-	Low Negative Impact;	L+	Low Positive Impact;
Blank	None		

Table 15: Summary of Impact Assessment and Screening w.r.t. ESS's

E&SS	Parameters	Impacts				
		None /Insignificant	Minor /small	Moderate	Significant	
					Major	Severe
ESS-1	Waste Management		▓			
	Public health and safety		▓			
	Health and safety of workers			▓		
	Energy consumption		▓			
	Ambient air quality		▓			

	Traffic management	▓		▓		
	Soil		▓			
	Aesthetics		▓			
ESS-2	Labor & working condition			▓		
ESS-3	E-waste management and disposal			▓		
	Resource efficiency			▓		
ESS-4	Community health & safety			▓		
ESS-6	Biodiversity conservation & natural resources.	NA				
ESS-7	Indigenous people/local communities	NA				
ESS-8	Cultural heritage	NA				
ESS-9	Financial intermediaries	NA				
ESS-10	Stakeholder engagement & information disclosure.			▓		

244. For identification of potential impacts of the project interventions, screening of activities causing impacts has been carried out in different phases of the project life. In the impact assessment exercise, the major project activities with their associated environmental issues were identified and then their impacts on the relevant physical, biological, and other elements were evaluated.

245. Environmental issues that need to be carefully addressed during each of the five phases as mentioned earlier, along with impacts assessment are presented in the following sections, while the recommended mitigations associated with each impact and their responsibility and compliance criteria are given also given in respective section.

246. Mitigation measures proposed in this chapter are based on good international industrial practices and guidelines.

6.3 Assessment of Environmental Impacts:

247. As described above, PRRP will have 4 broader phases with reference to replacement of existing IT equipment with new equipment. The assessment of Environmental Impacts is, therefore, made in accordance with the phases of the project.

6.4 Procurement phase and design considerations for minimizing Environmental Impacts

248. The objective of design phase measures is to ensure longer life of equipment and reduce the future quantity of e-waste. Another aim is to procure equipment with maximum quantity of recyclable components. Procurement of equipment will also conform to the regulatory requirements especially for the x-ray-based scanners.

249. Design measures require certain actions on part of the bidder/supplier so that Project Management Unit (PMU) should be able to determine if the IT equipment being purchased supports the efforts of reducing E-waste quantum during operational phase of the PRRP as well as ensuring that infrastructure for installation of new scanners is strong enough to withstand shocks, vibrations and natural hazards such as earthquakes. The detailed measures and monitoring requirements are presented in the Electronic Waste Mitigation and Monitoring Plan (EWMMP).

250. This phase of the PRRP will have two sub-components:

- Procurement of Equipment
- Infrastructure improvement for equipment installation

251. New equipment means adding energy demand to the existing energy consumption bill. Therefore, new equipment will have its own carbon footprint. Energy demand will be increased as a small portion of dismantled equipment will be discarded as waste while majority of it will be reused in sub offices. Paper usage for printing and copying will increase, resulting in an increase in paper waste whereas, alternatively, the digitization of the system will also result in reduction of paper use. Future E-waste generation and management would also be another problem with new equipment if procurement does not cater for the recyclable nature of equipment and their components.

252. The mitigation measures for impacts related to procurement of equipment include:

a) Carbon footprint of equipment: Equipment to be procured and installed will be energy efficient. Products must meet specific environmental performance requirements with respect to energy use. During the tender process, a condition may be followed in this regard that bids that do not comply with the environmental performance requirements would be eliminated from the tender process. Bids evaluation to consider that computers, servers, laptops, and other ICT equipment must qualify to carry Energy Star labels.

b) Suppliers of laser printers and copiers must guarantee that their equipment is compatible with high quality recycled paper.

c) Copiers or printers must provide duplexing (double siding).

d) X-ray based scanners to be procured as per PNRA regulations requiring imports by licensed importers.

e) A qualified structural engineer to certify the identified buildings (without damage such as cracks, loose wiring, etc.) for installation of scanners and sensitive equipment.

f) Engineer to further certify that the building is earthquake resistant.

g) Technical specifications in bids/contracts to identify recyclable equipment or components/parts of equipment.

h) Contract agreement to contain a commitment from bidder to comply with the Environmental requirements.

i) Technical specifications in bids/contracts will provide details about how they will be safely disposed at the end of life.

j) FBR will ensure that auction of IT equipment also conforms to the environmental policies as regards management of e-waste e.g. certified e-waste recyclers with proper facilities is considered.

k) Successful bidder to confirm to take back the equipment when its useful life ends thus providing end-of-life buy back guarantee.

253. Some infrastructure improvements will be required in a few offices during PRRP implementation phase such as improving the electrical wiring and network cabling, refurbishment of air conditioning, partitioning, roof repairs, etc. These activities will result in some impacts such as generation of wastes. Mitigations measures are provided for such impacts in the Environmental and Social Management Plan (ESMP).

254. All infrastructure improvement activities such as fixing damaged roof ceiling panels and damaged electrical wires will be carried out in existing buildings, therefore none of the design activities will be harmful to nature, habitat, and biodiversity. Roofs are usually made of fall ceiling structures that have metal frames and pieces of panels made of wood, plastic, or other materials. Panels will be placed in frames in a few offices without any civil work. Also, the PRRP activities will not be carried out in any sensitive area.

6.5 Water /Electricity/ Natural Gas/ Fuel Consumption

255. As the project will install new ICT equipment in FBR offices, the equipment will consume energy. The design phase will put in place some measures/guidelines to cater for the energy demand during operational phase. There will be moderate increase in resource consumption during project operations due to increase in equipment at FBR offices across Pakistan. It will pose pressure on energy resources of the project area of interventions. The impact is likely to be minor as the project activities will be carried out and confined to the existing FBR office buildings. No new construction is envisaged. Therefore, the design phase will consider the following measures to minimize the energy consumption of the operational phase.

Mitigation Measures:

▪ Procurement procedures to include conditions on provision of Energy Star or equivalent labelled low voltage electrical appliances.
▪ Designing of awareness/training program for staff on energy conservation practices.

6.6 Dismantling phase Environmental Impacts:

256. Dismantling of existing IT equipment will be an important phase during PRRP implementation. This will primarily create environmental impacts as well as social issues such as discontinuation of services to users including taxpayers and tax consultants.

257. Dismantling phase will generate E-waste at regional/sub office level. As already mentioned, FBR offices are located across Pakistan quite away from each other making it unfeasible to collect and bring all E-waste to a single place and then handover to any

dealer/recycler of choice. The reason being the cost benefit difference between the value of E-waste and cost on its handling, transport and temporary storage. This cost implication makes it unfeasible for a centralized E-waste collection and disposal. Moreover, local office level E-waste disposal through certified/registered local scrap dealers will ensure recycling and job opportunities for manual workers. In this scenario, E-waste burning will be avoided and finally the e-waste will be disposed-off in an environment friendly manner.

258. Moreover, recovery of precious metals, such as those from printer's circuit boards or cobalt and other metals from batteries as well as less valuable but potentially toxic materials, such as CRT glass and flame-retardant plastics, require high investment. Such facilities are available with licensed recyclers only. PRRP will be producing minor quantities of E-waste which will be handed over to licensed scrap dealers/recyclers.

259. Dismantling phase measures will be required for:

- Occupational Health and Safety
- Identification of equipment – General guidelines
- Usable equipment
- Repairable equipment
- Unusable equipment i.e., E-waste

6.6.1 Identification of Equipment – General Guidelines

260. Once the equipment is dismantled, Admin Staff in coordination with Environmental and Social Focal Person will develop inventories using template at Annex-2A. The purpose of this exercise is to:

a. Identify usable and repairable equipment (computers, laptops, printers, and networking equipment) that can be used further to extend its useful life thereby reducing the e-waste for final disposal.
b. Back up and safeguard all data on new memory devices while clearing memory from old equipment with experts' support.

261. More mitigation measures provided in the EWMMP. The impacts have been elaborated as follows:

6.6.2 Air Quality

262. During dismantling activities dust will be of concern as it may be generated from the areas which were difficult to access due to installed equipment and regular cleaning was difficult. Moreover, dust will be generated during inspection and cleaning of equipment. That dust takes time to settle down, but it spreads away from its point of origin thereby contaminating other equipment, floors and furnishing.

263. While dismantling or removing used printer/copier cartridges, powder ink from such cartridges may be released and add to the dust besides clinging on surfaces, equipment, and human body. Sometimes, washing is done to remove such powder and dust that contaminates the water entering sewerage lines.

264. No other fumes or air pollutants such as smoke are anticipated to be produced.

Mitigation Measures:

- Use vacuum cleaners to clean up dust.
- Use hand-held portable air quality monitoring device for instantaneous air quality status.
- Install the new equipment with enough space between the equipment and between the equipment and walls to facilitate cleaning in the future.
- Large servers to be installed in interior rooms with no access and windows to outside to minimize influx of dust.
- Server rooms will be ventilated to outside with care taken to prevent entry of rodents and other pests.

6.6.3 Waste Generation

265. Dismantling activities prior to installation of new equipment, will produce different types of wastes such as plastics, wood, metals, E-waste, etc. Wastes of different types end up in ecosystem thereby polluting environment and requiring resources for disposal including land, money and human resources. Disposal sites become breeding grounds for disease vectors. Land loses its aesthetic value. Leachate from waste disposal sites may contaminate groundwater making it unfit for consumption for any form of life.

266. E-waste will be the major issue during dismantling activities. Most of the dismantled equipment will be reused at sub offices of FBR while some equipment or components of equipment will be rendered useless and considered as E-waste (the process of reusing dismantled equipment as well as auctioning has been discussed in detail in Chapter 4, section 4.2.4). Currently, FBR offices across Pakistan handover all wastes including E-waste to dealers through auction without any consideration for final disposal of E-waste. Although E-waste is segregated by the dealers and very little is disposed-off through burning for extraction of copper from wires and metals from printed circuit boards, there needs to be a mechanism for final disposal of E-waste through proper procedures. A generic E-waste management plan has been developed and attached to this ESMP as Annexure 2.

267. Dismantling of any previously installed vehicle/container scanner will follow the decommissioning plan prepared for the specific scanner at the time of its installation.

268. Other wastes originating from dismantling activities will include:
    a) Plastics from ducts, broken wiring and bottles, insulation materials.
    b) Wood waste
    c) Metal pieces such as screws, nails, clips, etc.

d) Paper waste, cardboard boxes, Styrofoam: The cardboard boxes, packing foams and papers of dismantled equipment could be found in stores which were stored for use during maintenance or troubleshooting. These materials become waste when their dismantled components are rendered waste and are no more useful. In such a case, the dismantled equipment along with its packing material and papers will be handed over to a certified contractor for proper disposal.

Mitigation Measures:

- Identify equipment that can be repaired/refurbished and reused to extend its useful life thus minimizing the e-waste.
- E-waste: Once e-waste is identified, implement the e-waste management plan.
- Create awareness among people engaged in E-waste handling, recycling/disposal business.
- Provide separate containers/boxes for collecting and storing several types of waste, handover to scrap dealer as per ESMP.
- General wastes: Collect all wastes, segregate them, and store them in separate containers in storage area.
- No open dumping or storage of waste. Identify storage area with markings for storing useful and discarded materials separately. Within these 2 areas provide space for different types of materials and mark accordingly.
- Under no circumstances shall the workers dispose of any material in environmentally sensitive areas.
- All waste to be handed over to waste/scrap dealers through auction.
- Good housekeeping: The dismantling staff will always follow a 'good housekeeping' policy. This will include, but not necessarily be limited to the following: Ensure workers are informed about the importance of good housekeeping; Ensure that mitigation measures for dust control and site cleanliness are implemented; Remove rubbish at frequent intervals, leaving the site clean and tidy; Remove food waste; all temporary signs, boards and posters to be removed as soon as the work is completed; Outside workers also be allowed to use toilet facilities and other welfare facilities such as canteen, etc.
- Adoption of generic E-Waste Management Plan prepared as part of this ESMP for all sub-project sites.
- E-waste collected in storage areas will be handed over to recyclers through auction within 3 months to clear the area for storage of other items.

6.6.4 Guidelines for E-waste Collectors, Transporters, Dismantlers and Recyclers

269. **Collectors:** The guidelines for the collector will be related to the safe storage of the E-waste. The storage place will be proper with respect to protecting the waste from sunlight and rain (weatherproof covering), placing waste on impermeable floor to avoid seepage of the hazardous material and waste segregation according to type of the waste. The store will be safe with respect to fire. The storage area will have the provision of spillage collection facilities and where appropriate, decanters and cleanser-degreasers as well. The workers will be equipped with proper PPE while handling the waste. The segregation of E-waste will be in two categories, as given below:

1 - Equipment containing CRTs: the CRTs need to remain intact because of health and safety reasons. Therefore, computer monitors will have to be collected separately from other waste and handled carefully.

2 - All other E-waste: This equipment can be collected in the same container because there are no recycling or health and safety reasons.

270. **Transporters:** The transport of E-waste will be safe so that it could not break/damage the E-waste to avoid release of hazardous material. The surface of the transport vehicle will be impervious, and equipped with containment arrangement and spill kits, to manage releases, in case of any accident.

271. **Dismantlers:** The guidelines for the dismantlers will mainly focus on the manual dismantling of different parts of the E-waste without using any chemicals or any burning process. The labor involved in the dismantling will be equipped with proper PPE while handling the waste.

272. Decontamination/ Dismantling is done manually. It includes the following steps:
   (i)   Removal and collection of all liquid and gases from the E-waste
   (ii) Removal of parts containing hazardous/ dangerous substances (Hg switches, PCB)
   (iii) Removal of easily accessible parts containing valuable substances (cable containing copper, steel, iron, precious metal containing parts, e.g., contacts)
   (iv) Segregation of hazardous/dangerous substance, and removal of easily accessible parts

273. **Recyclers:** The guidelines for the recyclers will be specific for the type and nature of the recycling process to be adopted by the recyclers. However, whatever the process is adopted, it will be safe for environment, and workers and community health. The major E-waste recycling techniques are decontamination and disassembly, or repair followed by shredding of different fractions. E-waste fractions emitted after shredding go for metal recovery. The remaining e-waste fractions are disposed-off either in landfills or incinerated.

Table 16: Key Activities and Responsibilities of E-waste Management Plan

Activities	Responsibilities	Frequency	Output
Development of initial E-waste management plan	FBR and PMU	One-time	E-waste Management Plan
Identification of E-waste inventory at the start of project	FBR, sub-project office and PMU	One-time	Initial E-waste Inventory
Liaison with EPC and receiving guidelines of E-waste recycling and disposal	FBR and PMU	One-time (continued)	Technical Guidelines
Capacity building and training staff (awareness raising of staff for E-waste management)	PMU	Once a year	Training Report
Procurement of ICTs equipment	FBR and PMU	Based on the Procurement Plan	ICTs Equipment Acquisition

Distribution and operations of ICTs equipment	FBR and PMU	Based on the Procurement Plan	Equipment Distribution Report
Collection of retired/obsolete ICTs equipment	Sub project office	Once a year (If E-waste generated)	Collected E-waste
Recording E-waste inventory and storing retired and obsolete E-waste	Sub project office		Updated E-waste Management Plan and E-waste Inventory
Initiation of E-waste disposal or recycling	FBR and Sub project office		
Visit and select E-waste recycling facilities	FBR and Sub project office		
Implementation of formal E-waste disposal and recycling	Licensed Collectors, Transporters, Dismantlers and Recyclers		
Update E-waste inventory	Sub project office	One-ended	

6.6.5 Occupational Health and Safety during Dismantling Phase

274. During dismantling phase, safety measures will be required for handling the E-waste. Such measures are also part of the main ESMP of ESMP. Measures required include provision and use of Personal Protective Equipment (PPE) by workers, provision of fire extinguishers, full time oversight by the Supervisor, careful handling of electrical connections and development of inventories.

275. All the necessary mitigation measures with respect to OHS are provided in the EWMMP. The occupational health and safety issues of importance during dismantling activities will include:

a) Fire hazards due to short circuits while removing the wiring and cabling.
b) Electrocution hazards to workers.
c) Handling and temporary storage of dismantled equipment in an appropriate manner is necessary for final disposal through E-waste management plan.
d) Physical injuries to workers other than fire and electrocution are always anticipated during dismantling activities.
e) Among health issues, Covid-19 will be of prime concern. A worker having Covid-19 may spread a virus to others if undetected. Workers may also avoid SOPs mandatory at workplaces.

Mitigation Measures:

- Workers will be provided with PPEs, and required to wear:
  o Face masks for protection against dust as well as Covid-19
  o Protective footwear, i.e., steel capped shoes or work boots.
  o Gloves to protect hands from sharp corners on the equipment.
  o High visibility vest for workers in the vicinity of project activities
- Workers will also be instructed in safe lifting techniques for heavy equipment such as computer monitors.

- In case of an incident/accident, the FBR will notify the WB within the 24 hours of incident. Incident report form at Annex 3 to be used for reporting of an incident.
- Paste Covid-19 SOPs on boards and at important places for the information of workers. Workers to follow Covid-19 SOPs.
- Encourage workers for Covid-19 vaccination. Covid-19 guidelines are provided below.
- Before the start of dismantling activities, inspect wiring for any damage, insulate any open point/joint with tape, only qualified/trained workers to perform such operations.
- Secure dismantling and storage areas with tape or signs allowing everyone to stay away. No unauthorized entry in storage area. Daily cleaning and clearing of the dismantling sites are desirable.
- No stacking of dismantled equipment beyond 3 feet height.
- Ventilation to be available in storage area.
- Control access of rodents in storage area.

6.6.6 Covid-19 Guidelines/Standard Operating Procedures (SOPs)

276. In order to prevent staff and workers from Covid-19 pandemic and to follow the mandatory requirements of preventing the spread of Covid-19, all workers, and staff of PRRP will strictly follow the standard operating procedures provided at Annex 10. SOPs such as social distancing, use of face masks and frequent hand washing will be followed by all workers. Regular temperature checks at the entrance of offices will be ensured. Workers will be required to show Covid-19 vaccination certificate while entering work areas.

6.7 Installation Phase Environmental Impacts:

277. As elucidated above, installation phase of the project will have activities that too pose minor to moderate environmental and social risks and impacts. Impacts of installation phase will primarily be related to waste generation, health and safety issues including risks due to Covid-19.

6.7.1 Infrastructure for Installation of x-ray-based Scanners

278. Installation of x-ray-based scanners and other related sensitive equipment requires proper buildings without damages and structural weaknesses that may pose risk of failure or damage in the event of any natural disaster such as earthquake or flood. Cracks in the walls provide passage for dust, rodents, insects, etc. that can cause damage to the sensitive equipment or lower the performance of scanners.

Mitigation Measures:
- A qualified structural engineer to certify the integrity of identified buildings (without damages such as cracks, loose wiring, loose texture, etc.) for installation of scanners and sensitive equipment.
- Engineer to further certify that the building is earthquake resistant/safe.

6.7.2   Civil works for infrastructure improvement for scanners

279. Minor civil works will be carried out at identified locations for creating base for installation of scanners at ports. The environmental impacts of civil works of this nature will include dust and wastes. Dust is expected to be generated during civil works for scanners. Although it will be limited in scale due to the extent of civil works, workers need to take care of dust inhalation to protect their health.

280. Civil works will impact flow of traffic and movement of people. Therefore, traffic management needs to be considered during civil works at the respective site. Traffic management is discussed in next section with proposed mitigations.

281. In addition to above, waste from civil works will also require proper handling and disposal. Such waste will include excavated materials, waste from mixtures of fresh construction materials, paper bags, etc.

282. The mitigation measures for control of dust to protect worker's health have been provided under the section on occupational health and safety. Similarly, wastes from civil works and their management has been discussed under the section on waste generation below.

6.7.3   Traffic Management

283. During civil works for installation of scanners at ports, the traffic of all types including vehicles and cargo containers might be affected. Hindrance to traffic may happen if civil works are spread beyond the identified/required space and materials are not properly stored on site. Therefore, mitigation measures need to be implemented to allow smooth flow of traffic even during the civil works.

Mitigation Measures:

- Traffic management plan to be developed where flow of traffic is expected to be disrupted as identified by the Environmental and Social Focal Person.

284. Traffic management plan will have provision for alternate passages, a worker to be designated as traffic warden during civil works, safety signs and information notes to be pasted at work site.

6.7.4   Waste Generation

285. The following types of waste will be generated during installation phase, the quantity (at each site) of which depends upon the quantity of new equipment to be installed at any location. Therefore, the quantity will be different for each installation site.

    a) Duct cuttings, plastics, insulation materials, wire pieces, metal clips, metal joints, bolts, nuts, cable joints,
    b) Packing boxes/cartons, packing foams (Styrofoam), packing plastics, and packing strips.

c) Paper: Almost every component procured has printed material related to product description, installation guidelines, maintenance guidelines, warranty cards, safety instructions, etc. These papers are usually found inside the packing box placed inside plastic pouches. Such papers are sometimes rendered waste and thrown with municipal waste.

d) Wastes from civil works will include excavated soil material and wasted mix of construction material.

Mitigation Measures

- Provide separate containers/boxes for collecting and storing different types of waste, handover to scrap dealer as per ESMP.
- No open dumping or storage of waste. Identify storage area with markings for storing useful and discarded materials separately. Within these 2 areas provide space for different types of materials and mark accordingly.
- Civil works waste from excavation as well as from mixtures of new materials to be stored under cover at designated places.
- Such wastes to be transported to proper/designated waste disposal sites on the same day.
- E-waste: If any E-waste is generated during installation phase, the Contractor will collect it and take it back for recycling. This waste will not be handled by PRRP.
- Such E-waste will not be mixed with other wastes.
- Under no circumstances shall the workers dispose of any material in environmentally sensitive areas.
- All waste to be handed over to waste/scrap dealers through auction.
- PRRP will avoid wasting paper from packing and will keep all such papers under inventory controls for reference and taking guidance when need arises. Such papers will be kept in packing boxes, marked with identity on each box and stored in the storeroom. In such a way a large number of boxes will be utilized thereby reducing the quantity of waste.
- Good housekeeping: The staff who will be installing the equipment will always follow a 'good housekeeping' policy. This will include, but not necessarily be limited to the following: Ensure that the workers are informed about the importance of good housekeeping; Ensure that mitigation measures for site cleanliness are implemented; Remove rubbish at frequent intervals, leaving the site clean and tidy; Remove food waste; all temporary signs, boards and posters to be removed as soon as the work is completed; Outside workers also be allowed to use toilet facilities and other welfare facilities such as canteen, etc.

6.7.5 Occupational Health and Safety

286. During the installation phase, workers will be exposed to health hazards. The installation workers will be engaged by the Contractor(s). Therefore, in accordance with ESS2 "Labor and working conditions" the labor management procedures will be implemented.

287. The health and safety impacts on workers during installation phase will include:

a) Fire hazards due to mishandling of electrical wiring, short circuits, dispersed waste containing paper that can easily catch fire, cigarette smoking, etc.
b) Electrocution hazards: Cutters, pliers, hammers, screw drivers, and other tools such as cable jointers will be commonly used during installation activities. Using such tools on electrical wiring poses electrocution hazards to workers if such tools are not properly insulated, PPEs are not properly worn, and untrained workers are employed.
c) Physical injuries to workers: Fall from height, overturning due to equipment, furniture and material placed on walkways, cuts due to sharp tools, etc.
d) Inhalation of dust as a result of civil works.
e) Noise generated from construction activities.
f) Covid-19: A technician/worker having Covid-19 may spread virus to others if undetected. Workers may also avoid SOPs mandatory at workplaces.

Mitigation Measures:

- Workers engaged for installation of x-ray-based scanners will be briefed on safety requirements.
- Installation of x-ray-based scanners to be performed under strict guidelines of manufacturer as well as the SOPs developed for installation phase.
- An emergency exit plan of the building will be prepared and people working in the building/office will be trained in following the exit plan.
- Proper cooling arrangements (air conditioners) will be ensured in the rooms where ICT equipment will be installed.
- Ensure concealed and insulated wiring, no open joints, no contact between joints and wood/paper, ensure no loose connection in electrical wiring.
- Keep CO_2 fire extinguishers ready all the time.
- Provide training for staff/workers on the use of fire extinguishers.
- Install smoke detectors and fire alarms before commencing installation activities.
- Avoid using carpeting in the areas where equipment is installed.
- Only trained workers to perform installation activities.
- Proper PPEs including gloves and rubber boots to be provided to workers by the Contractor. Other PPEs I include:
  - Face masks for protection against dust as well as Covid-19
  - High visibility vest for workers in the vicinity of project activities
  - Gloves for civil works.
  - Hard hats during civil works.
  - Ear plugs during construction activities.
- Water sprinkling to be ensured to suppress the dust.
- Excavated material as well as waste will be kept under cover to avoid the spread of dust from these sources.
- Workers will also be instructed in safe lifting techniques for heavy equipment such as computer monitors.
- In case of an incident/accident, the FBR will notify the WB within the 24 hours of incident. Incident report form at Annex 3to be used for reporting of an incident.
- Incident report form at Annex 3 to be used for reporting any incident.

- Clearance of site after completion: On completion of the works the Contractor will clear away and remove all materials and rubbish and temporary works of every kind. The site will be left clean and in a condition to the satisfaction of the PRRP Environmental Focal Person or Environmental Management Specialist.

6.7.6   Covid-19

288. Covid-19 will continue to affect people in every corner of the world unless vaccination is completed. Covid-19 may also be a concern at the workplace during the installation phase. The Covid-19 guidelines described above for dismantling phase will be followed during this phase as well.

6.8   Operation Phase Environmental Impacts

289. Operational Phase of the PRRP will be important as this phase will continue to produce wastes of different types including e-waste as well as posing risks to health and safety of staff in FBR offices. The operation of IT equipment in closed or confined spaces will have a number of environmental impacts. The impact will be due to air quality, waste management and safety issues. Another critical issue identified during stakeholder consultation is the intrusion of rodents (mice) in the offices through holes and vents that destroy wires/cables and other materials resulting in short circuits and fires. Short circuits due to mice resulting in some incidents of fire have been reported in the past in this connection.

6.8.1   Licensing and Operation of x-ray based Scanners

290. There is a risk of exposure to radiation to workers and drivers from scanners during operational phase. The current technology of scanners has a high standard of protection for users and those who come in contact with radiation. The x-rays produced are less harmful in modern scanners while safety features also include irradiation only when container reaches to a certain predefined point in the scanner. This allows only the container vessel to be irradiated with x-rays thus preventing the driver. Nevertheless, risk exists in using such scanners that need mitigations.

291. Operation of x-ray-based scanners is regulated by PNRA. Therefore, PNRA requires scanner users to obtain a license from PNRA while fulfilling certain requirements as mentioned in the PNRA regulations. Without licensing from PNRA, Pakistan Customs will not be able to operate the x-ray-based scanners.

Mitigation Measures:

- Port authorities to apply for license for use of x-ray-based scanners following the PNRA regulations PAK/908 (Rev. 1).
- Pakistan Customs will coordinate with PNRA to develop SOPs in accordance with the manufacturer's guidelines, PNRA advice and World Bank requirements.
- Provide training to users on safe use of scanners in accordance with SOPs.

- Pakistan Customs to coordinate with PNRA for regular monitoring of radiation leakages and radiation exposure
- End of life disposal of x-ray-based scanners will follow the PNRA Regulation on Decommissioning of facilities using Radioactive Material (Pak/930) as well as manufacturer's guidelines on disposal of such equipment. These guidelines will be prepared as part of the Decommissioning Plan which will be prepared at licensing stage by Pakistan Customs and supported by Project.
- For the safety of workers and operators, the project will ensure that an exclusion zone will be established to protect workers from the impact of x-ray radiation. Establishment of exclusion zone will depend upon the type and requirement of specific scanner.

6.8.2   Air Quality

292. Limited research done to date show that laser printer emissions are different to toner particles and the particulates of urban ambient air pollution. The research indicates that emissions from laser printers are primarily aerosol condensates of VOCs or SVOCs and that it would be logical to expect possible health effects to be more related to chemical nature of aerosol rather than the physical character of the particulates. Further, analyses indicates that the risk of direct toxicity and health effects from both laser printer emissions and toner particles is negligible..

Mitigation Measures:

- Ensure that equipment such as photocopiers, laser printers and faxes are situated in a well-ventilated area.
- Following good fire safety management, these machines will not be allowed to occupy corridors or means of escape because of the increased fire risk and impedance of escape routes.
- All office equipment will be regularly serviced and maintained to ensure it is in good working order.
- In mechanically ventilated office areas, ensure the ventilation is operating at all times when printers are likely to be used, and ensure ventilation is in operation before people arrive at the office every day.
- In non-mechanically ventilated offices, ensure fresh air is supplied via open doors and windows.

6.8.3   Waste Management

293. Waste will continue to emerge daily during the operational phase of the PRRP once the installation is completed. The waste from operationalization of IT equipment will comprise paper, food waste and e-waste including discarded components of IT equipment (e.g., keyboards, mouse, wires, monitors, etc.), bottles of copier/printer ink, and printer cartridges as well. Larger e-waste including servers and CPUs, etc. will also require safe disposal.

Mitigation Measures:

- Different waste bins marked for specific type of waste to be provided in each section of the building.
- Do not mix food waste with general waste (paper, plastics, etc.).
- Food waste to be collected and thrown in municipal waste dump on daily basis.
- All general (other) wastes to be collected and stored in a dedicated storage area.
- Segregate the wastes for ease of identification and disposal.
- Follow e-waste management plan for disposal of e-waste.
- General waste to be auctioned or if low in quantity, may be dumped in municipal waste collection bins.
- Introduce paperless or least paper-based work practices.
- Provide training on waste management including awareness creation on reduction in use of paper and related measures for reducing energy consumption.
- Provide training on resource efficiency, energy conservation and good international industrial practices.
- If required to protect confidentiality, use a paper shredder.

6.8.4   Emergency Procedures/ Fire Prevention and Control

294. During the operational phase, there will be a risk of fire due to short circuits from loose/open wiring or due to rodents' infestation. Health emergencies may also arise in the workplace. Similarly, fumes of toxic gases may form due to fires that burn electronic components. It is, therefore, important to have in place some measures to mitigate emergencies in offices.

295. Emergency exit plan will be prepared prior to dismantling phase and exit signs will be pasted at various locations in the building. Assembly points will also be designated inside the building premises. Emergency response drills will be carried out on a regular basis.

296. Each office will ensure that emergency procedures are in place to facilitate effective actions in case of medical/fire emergency as well as environmental pollution (release of toxic gases due to fire, etc.). The emergency procedure will contain emergency phone numbers and the method of notifying the authorities. Contact numbers for the key staff of the office will also be included.

297. During operation and maintenance of equipment, the Supervisor/Contractor will ensure that its workers are aware of the procedures and have enough knowledge to comply with them. The specification of non-combustible materials, products and packaging will be pursued wherever reasonably practicable.

295. Admin staff will maintain a record of repair and maintenance work. Admin staff will record all incidents such as short circuits, fires, etc. Admin staff will also keep a record of reasons for incidents and actions taken to avoid such incidents in future.

296. Although x-ray-based scanners only emit radiation when energized to do so, even then the risk of failure of scanner and radiation leakage needs attention. To avoid such a situation emergency procedure for scanners will be developed in coordination with PNRA at licensing stage. Emergency power shut-off system will be part of the emergency procedures. PNRA guidelines as well as those of manufacturers exist for emergency procedures in case of mishandling or disaster that ensure safety of humans as well as the equipment.

6.8.5   Measures to prevent entry of rodents into offices

297. Offices are the center of businesses where meetings are held and work is being completed, a rodent infestation can create less than ideal working conditions for staff. Mice carry diseases and parasites, cause damage from gnawing building fixtures and fittings such as electrical wiring, network cabling and contaminate food and surfaces with dirt, droppings, and urine.

298. Rodents may halt operations when they destroy connections. Fires due to short circuits are commonly reported for which rodents have been held responsible. Therefore, it is important to control/block entry of rodents in office buildings and inspect buildings at regular intervals to point out any entry of rodents.

Mitigation Measures:

299. Admin staff of each building to follow the measures to prevent entry of rodents into offices attached as Annex 4. Important actions from the guidelines include:

- Ensure the personal items and crockery in offices is cleaned so that it will not attract mice.
- Keep food and snacks in air-tight plastic containers.
- Provide dedicated dining rooms or eating areas for staff. The lunch / tea areas to be located away from the computer / printing area.
- No food or drinks (except water) to be allowed in computer / printing area.
- Outside main waste dumpsters to be placed at a suitable distance so that mice may not find their way into the offices.
- The garbage cans/waste bins in offices to be cleaned daily after office hours.
- Use of bait to capture intruder mice.
- Seal gaps and holes around utility cables, outdoor vents or pipe work with steel wool or silicone-based caulk.
- Neutered cats will be adopted in the office to hunt the rodents. The staff will be instructed not to feed the cats.

6.9   Social Impact Assessment

300. This section investigates and assesses the social risks/ impacts pertaining to the PRRP activities and proposes mitigation strategy that would minimize the occurrences of social

risks and impacts. The program raises revenue by using the tax base and increase compliance, rather than introducing new taxes or raising tax rates. The project interventions include the overhaul of the existing Information and Communication Technology (ICT) equipment, improvement in the business intelligence tools, strengthening the tax and custom administration and modernization of the data analytics in the Federal Board of Revenue (FBR). The project also focuses on the implementation of a simplified and strengthened tax and customs administration by equipping the FBR with the needed ICT tools and technical skills to make effective use of taxpayer information, with big data techniques and modern risk-based tools for more efficacious, targeted compliance control. The integration of the ICT tools and electronic scanning equipment will enhance taxpayer services for revenue generation and trade facilitation.

301. It is worth mentioning that the PRRP activities have more positive socio-economic outcomes than social risks. The program aims to contribute positively to the public resource management and sustainable increase in the tax revenue outcomes (through simplification of the tax system and taxpayer/trader facilitation) which would create the fiscal space for public investment and public services thus supporting the overall long term socio-economic impacts of ending poverty and promoting shared prosperity (WBG's Country Partnership Strategy FY 15-20).

302. The World Bank's Environmental and Social Standards (ESSs) under Environmental and Social Framework (ESF)[50] have been referred along with the regulatory analysis, baseline and stakeholder consultations as well as the scope of social risks/ impacts from the aforementioned project component 1 and 2 of PRRP financed by the World Bank through IPF. The impacts and risks identified are presented in the Environmental and Social Management Plan (ESMP) constituting the mitigation strategy related to all ESSs that are triggered by the project activities mentioned in the Environmental and Social Commitment Plan (ESCP).

303. The Social standards within the 'ESS' that are triggered due to the project activities are:

- ESS1 Assessment and Management of Environmental and Social Risks and Impacts,
- ESS2 Labor and Working Conditions,
- ESS4 Community Health and Safety due to E-waste and
- ESS10 Stakeholder Engagement and Information Disclosure.

304. Noticeably, the project involves civil works for component 2 which is installation of portable radiation scanners and construction of remote image analysis center (RIAC) that will require minor excavations, on site construction on the existing public lands being used for commercial purposes not involving any sort of land acquisition and involuntary resettlements or physical or economic displacements of the informal settlers, Also, during the construction phase and operation phase on the selected site, labor working conditions and health and safety of staff and drivers (from radiations and air pollution from vehicular emissions, etc.) are major concerns that would need a prevention and mitigation strategy.

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[50] https://www.worldbank.org/en/projects-operations/environmental-and-social-framework

305. Also the portable radiation scanners have to follow the radiation protection management and staff health and safety protocols for workers/ drivers' health and safety in operation stage and also decommissioning of the system as per PNRA requirements. Some other issues identified in the social assessment are also related to the exclusion of the low IT literate taxpayers/ or differently abled taxpayers, job security challenges (relocation to other public departments)/ downsizing due to transitioning to fully automation identified through the baseline of digital divide/ gender digital divide , job security and public sector job transfers patterns etc. Most important issues are of the e waste management and on-site labor conditions due to exposure from scanners or electrocutions during urban flooding especially in onsite offices in Karachi. The social risks and impacts related to labor issues of handling and exploring to e waste/radiations from scanners and community health and safety are part of the E waste management plan for ICT equipment's (life cycle assessment) and will be part of ESMP.

306. In view of the social assessment carried during the development of this ESMP, the project's classification for social risks/impact is moderate provided that the mitigation strategy/plan is adhered to as also mentioned in the ESCP especially for the aforementioned social risks and impacts from project activities on *Labor working and health conditions due to civil works in the dismantling and installation stages of the x ray scanners, community health safety due to e waste, exclusion of low IT literate taxpayers, exclusion of female tax payers, differently abled tax payers, security challenges due to transfers as a result of automation*. These social risks and impacts will require the following mitigation plans also mentioned in the ESCP:

    1. Labor management procedures
    2. Occupational health and safety
    3. E waste management protocols
    4. Emergency preparedness and response
    5. GRM operationalization and management

307. The social impact assessment for the project activities is divided into three distinctive stages:

    1. Design
    2. Operations
    3. Post-operations

308. All social risks, impacts and the ESS triggered are elaborated for each stage along with the proposed mitigation strategy/ plan.

Table 17: Potential Social Impacts (Prior to Mitigation)

		Project Interventions with social risks/ impacts								
Impacts on		**Design**		**Operations Dismantling, Installation & Retrofitting**				**Post Operations**		
		Designing of E services/ appeals/ for Tax payers/ Tax administration	Procurement of new IT equipment	Dismantling of used IT equipment	Installation of new IT equipment	Generation & disposal of E-waste	Installation of X ray scanners /construction of RIAC + Site prep for X ray scanners at port	Operation of new IT equipment	Use of x-ray based scanner	Final end-of-life disposal of equipment -X-Ray Scanners (radioactive)
Social Risk / Impacts	Exclusion (differently abled tax payers e.g. visual impairments/partial) (gender-digital divide- female tax payers/ in house female staff)	M	-	-	L-M	M	M	M	M	-
	Social Conflicts	-	-	-	-	-	-	L	-	-
	Data Theft/ Cyber Attacks	L	-	-	M	-	-	-	L	-
	Health and Safety of Workers - Female staff - Site Labor (construction workers/ waste handlers) - Others (Admin and Support Staff at the FBR and Clients)	-	-	M	-	M	M	L	L-M	H
	Public Health, Safety and security	-	-	-	-	M	L	-	M	M
	Traffic/ air	-	-	-	-	-	M	-	M	-

Impacts on	Project Interventions with social risks/ impacts								
	Design		Operations Dismantling, Installation & Retrofitting				Post Operations		
	Designing of E services/ appeals/ for Tax payers/ Tax administration	Procurement of new IT equipment	Dismantling of used IT equipment	Installation of new IT equipment	Generation & disposal of E-waste	Installation of X ray scanners /construction of RIAC + Site prep for X ray scanners at port	Operation of new IT equipment	Use of x-ray based scanner	Final end-of-life disposal of equipment -X-Ray Scanners (radioactive)
pollution									
Land Acquisition, Restrictions on Land Use and Involuntary Resettlements	-	-	-	-	-	-	-	-	-
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	-	-	-	-	-	-	-	-	-
Cultural/religious and Archaeological resources	-	-	-	-	L-	-	-	-	L

H-	High Negative Impact;	H+	High Positive Impact;
M-	Moderate Negative Impact;	M+	Moderate Positive Impact;
L-	Low Negative Impact;	L+	Low Positive Impact;
Blank	None		

Table 18: Summary of Impact Assessment as per WBG ESSs

E&SS	Parameters	None /Insignificant	Minor /small	Moderate	Significant Major	Severe
ESS-1	Waste Management			▓		
	Public health and safety		▓			
	Gender Divide/ Gender Digital Divide/ Exclusion of Differently abled tax payers			▓		
	Health and safety of workers			▓		
	Social Conflicts			▓		
	Data Theft			▓		
	Ambient air quality		▓			
	Traffic management			▓		
ESS-2	Labor & working condition			▓		
ESS-3	E-waste management and disposal			▓		
	x-ray decommissioning / radioactive disposal			▓		
ESS-4	Community health & safety			▓		
ESS-5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlements	NA				
ESS-7	Indigenous people/local communities	NA				
ESS-8	Cultural heritage	NA				
ESS-9	Financial intermediaries	NA				
ESS-10	Stakeholder engagement & information disclosure.			▓		

6.9.1   Design Phase social impacts

309. In the design stage of the project, certain activities of project component 1 are intended to improve the overall tax administrative system through simplification and transparent tax system, compliance facilitation and effective control of taxpayer's obligations and institutional development for efficiency and accountability. The social risks pertaining to component 1 activities include: Exclusion of low-IT literate tax payers, especially the female tax payers and differently-abled tax payers, social conflict among traders and business associations due to miscommunication/ negative assumptions and data theft.

6.9.1.1 Social Exclusion

310. In the design stage of the project component 1 activities especially for the simplification of tax forms, e tax services, appeal procedure for the FBR clientele; it is imminent to address the concerns related to the exclusion of low-IT literate tax payers, especially the female tax payers and differently -abled tax payers.

311. Statistics show that women account for less than 1 per cent of all the income taxpayers in Pakistan due to low labor force participation.[51] FBR's report also highlights that out of 1.32 million returns salaried women stood at 4.9% with 65225 and non-salaried women at 6.4% with 85278 filers[52].

312. There, is a wider digital divide between female and male users (as per GSMA's mobile gender gap report) in Pakistan due to low IT literacy, inaccessibility/ unavailability of internet, gender- digital divide. This digital divide and low IT literacy of tax payers can increasingly prevent FBR's clientele especially female tax payers/filers (or new filers) residing in under service stations/ women owned businesses and differently abled persons to uptake/ drive benefit from improved e-services facilities.

313. The simplification of tax procedures/ e-services design will also pay attention to differently-abed persons / physically challenged (visually/ partial visual impairment/ dyslexic) who are unable to access the online platforms because of disability. Most importantly, in designing the institutional development activities for FBR and PCS workplace equality protocols (as emphasized by the Government of Pakistan) will also be mainstreamed. The social risks generated from the exclusion of low- IT literate taxpayers especially women/ women-led businesses and differently abled persons (lacking access to e-services filling returns portal/ appeal procedure) could undermine the project's activities to generate revenue generation outcomes.

Mitigation Measures

314. There project activities related to the simplification of the tax forms, e tax services, appeal procedure will integrate the elements of the inclusivity and accessibility to differently abled/ physically challenged clientele. Following could be addressed through:

- Most importantly, efficient designing of tax administration framework to make procedures (appeals/penalties) more transparent and intelligible to taxpayers and staff through training. Tutorials will be readily available to avoid issues like exclusion of the low IT literate taxpayers/ or differently abled taxpayers or women taxpayers/ women led companies taxpayers on the usage of these e-services
- Options for disability supported software supported-e services portal/ interface.
- Service centers/ customers services hotlines will be established for the inclusion of the female taxpayers and differently- abled tax payers for filling of returns etc.
- Orientation and Outreach strategy for launching of improved e-services for existing and new clientele (taxpayers) through training, seminars in close partnership with women associations and disability organizations.

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[51] https://www.dawn.com/news/660575/where-are-the-women-tax-payers-in-pakistan
[52] https://www.fbr.gov.pk/tax-culture/21136#:~:text=She%20said%20women%20in%20Pakistan,share%20of%20non%2Dsalaried%20women

6.9.1.2 Social Conflict

315. According to various media reports, FBR own website reports (*mentioned in the baseline in section 4.13 from 2019 till 2021*) and during consultations, it was observd that conflict between the trader and business associations contravening the FBR's tax reforms erupted. Although the conflicts were a result of tax reforms for traders or to bring the undocumented sectors (see baseline for chronological order of these conflicts) under the tax net and do not undermine the existing project components (as the project raises revenue through simplification of tax process and ICT overhaul and not through reforms). However, in the past protests were reported by traders associations, threatening the FBR through sit ins as a result of miscommunication and negative assumptions[53].

Mitigation Measures

- The aforementioned social conflicts as a result of miscommunication and false propaganda could be completely avoided through effective implementation of PRRP's SEP
- Grievance Redressal mechanism will be in place to address concerns of various parties (traders, businesses, women taxpayers or other marginalized) affected by the tax reforms and regimes. Although the project aims at increasing the tax base through simplification of tax procedures, the GRM through online complaint management/ facilitation will minimize the risks of social conflict and community grievances generated as a result of misperceptions. The country lacks tax literacy and access to information on the tax benefits through public service delivery e.g. Annual Development Plans/ public expenditure or other public schemes
- Disclosure and information exchange through electronic, print and social media through FBR official accounts along with customers service hotlines for FBR clientele.
- Social Conflict analysis is required as the baseline identifies various conflicts between the implementation agency and its client type (e.g. traders). The detailed assessment will study the ongoing conflicts (extent, magnitude, frequency, types) between different types of filers (the dominant and the disadvantaged groups) with the FBR and enable the FBR to devise a conflict resolution/ GRM strategy accordingly.

6.9.1.3 Data security and cybercrime/Data theft

316. Cybercrime/hacking and data security threats are emerging with the transitioning of key public services /fin-tech services to electronic regimes. Thus, for the data analytics, business intelligence tools/software extra security will be ensured for data security of the FBR clients and to avoid situation of disharmony and tension building in the FBR client over their data protection and security. It has been noted in the baseline that FBR has faced threats on data security with cyber-attack reported in past. Although the project

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[53] For example, in 2021 the traders association protested contravening tax ordinance of 2021 due to miscommunication spread by irresponsible entities on social media causing enrage among the traders, miscommunication included FBRs authority to cut power and gas supply and mobile services.

itself addresses this issue through component 2 majorly but following measures could be adopted to avoid any grievances or panic among the FBR staff and clients.

Mitigation Measures

- Firewalls will be erected to protect data centres with independent cloud services (already proposed in the project) to prevent the risks of cybercrime, hacking and data thefts.
- Hiring of competent staff to provide oversight management, data protection.
- Backup ICT facilitation plan in case of system failure or cyber-attack especially to facilitate consignments clearance at the sea and airports to avoid any conflicts and frustration among clients.

6.9.1.4 Labor Working Conditions

317. The social risks associated with Labor working conditions pertaining to project component 2 activities are captured in length in the operations phase of the project. However, attention will be paid to carrying out preliminary occupational health and safety risk assessment in the FBR and PCS offices to screen for health risks pertaining to poor building designs. Also, in the design phase the procurement agreements and contractual modalities for subcontractors health hazards pertaining to disposal and decommission of X-Ray scanners will reflect the E-waste management and Occupational Health and Safety provisions/ compliance to World Bank policies and GOPs regulations.

Mitigation Measures

- Carry out detailed risk assessment to check for cracks, loose wirings, cracks in the ceiling/ earth quake resistant / urban flooding proofed- for the installation of the sensitive ICT equipment with labelling and signs towards control rooms and fire safety (extinguishers/ exits plans)
- In the procurement and contractual agreement, the X-ray based scanners will be procured as per PNRA regulations requiring imports by licensed importers also the decommissioning of x-ray scanners, training of in-house / on duty staff over radiation protection management will be embedded in the tendering documents (design). The licensed E-waste management firm procured/ for dismantled ICT equipment will comply with HSE protocols (on site) the arrangements will be part of specifications in bids/contracts.

6.9.2 Implementation phase social impacts – Dismantling and Installation

6.9.2.1 Labor Working and Health Conditions due to Dismantling

318. This phase will entail the dismantling of the existing ICT equipment, installation and retrofitting of new equipment/technology especially the installation of X-ray scanners and construction of Remote Image Analysis Centre in PSC HQs/ SAPT. The stage will also generate e-waste (mainly from computers, monitors and printers) and other

construction waste that could trigger the risk associated to *labor working/health conditions* (ESS2) mainly from the civil works during dismantling, installation and retrofitting.

Mitigation measures

- Ensure the use of the PPEs especially insulated gloves, safety boots for contractors and local workers during this stage of dismantling of old equipment/installation of new equipment. The PPEs will serve to reduce the safety risks among onsite workers from minor civil works/ injury while handling old/ heavy equipment or e-waste.
- The retrofitting and installation phase training, labeling, signage and communication can further limit the on sites safety risks for staff engaged and will also ensure safety of the expensive ICT equipment.
- As per environmental impact analysis and e waste management plan the e-waste disposal will be ensured through certified/registered local scrap dealers. FBR will be engaging licensed scrap dealer/ recycle for the safe disposal and recycling of the e waste and also the e- waste management plan will be devised for the project.
- FBR will be developing the labor management procedures that will ensure safety and health at work, fair treatment, non-discrimination, and equal opportunity for workers including vulnerable, disabled and children, and would support freedom of association and collective bargaining.
- An effective GRM will be set up to address the workplace concerns and complaints from all workers and staff
- Labor management procedures including HSE protocols and an E-waste disposal management plan will be devised under the project especially for civil works pertaining to installation of the container scanners, e waste disposal mechanism for the old IT equipment. Waste management plan will incorporate the environmental, health safety guidelines to dispose e waste and procedure to manage the e waste via 'E waste management plan' throughout the project life cycle) and will be implemented by all types of labor force (implementation agencies and contracted workers for handling/recycling.
- The proponent will also ensure the use of environmental and social screening checklists which will identify labor types/ contractual agreements/ safety protocols etc.

6.9.2.2 Labor Working Conditions as a result of Installation of X-ray scanners, Construction of Scanner equipment and Operations

319. An important part of the project is provision of vehicle and container scanners under Pakistan Customs automated entry and exit system at the seaports (four terminals KICT, SAPT, PICT, QACT[54]). The proposed inspection system will be utilizing X-RAY Scanners at the ports that will also allow the image operators (sitting in the control room) to distinguish the type of goods and perform verification of the goods for revenue collection, detection of restricted and smuggled goods and prohibited goods.

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[54] South Asian port terminal, Karachi international container terminal, Pakistan international container terminal,

320. During the installation of scanners, construction of scanner equipment and the control room, there are concerns related to workers occupational health and safety. There are some concerns related to the radioactive waste (during and end of equipment life). This will be addressed in compliance with the PNRA rules and regulations and ensuring the decommissioning services of these radioactive scanners by the licensed vendor is inculcated in the procurement requirements. Also it must be ensured that a radiation protection plan is proposed by the licensed vendor before commissioning of the system.

321. It can also be noted that the installation of x-ray based scanner and other sensitive equipment may pose serious risks to workers and community health and safety in case of natural calamity and thus require robust and disaster prone buildings without structural weaknesses/damages that could withstand the risk of failure, damage in the event of urban flooding, cyclones as flagged in the baseline.

6.9.2.3 Labor Working and Health Conditions as a result of Minor Civil Works for portal scanner equipment installation and Remote Image Analysis Centre

322. Minor civil works will be carried out at identified locations for installation of portable scanners at ports and construction/retrofitting of the Remote Image Analysis Centre During this stage workers onsite health and safety will be ensured and the proposed facility will comply to Pakistan's building regulations with fire safety protocols in place and health and safety guidelines to avoid on site accidents.

323. Often due to temporary works there could be grievances and conflicts between regular staff and the onsite construction workers. These grievances could arise from using common facility, to unavailability of all-inclusive facility, to not following good housekeeping policy etc. To avoid such issues, a separate dedicated facility for on-site/ temporary staff and contractors will be made available. Temporary sign boards, communication of good housekeeping policy, harassment policy, and disclosure to regular staff on shutdowns, diversions, dismantling, installation and construction could avoid conflict among in house staff and outside contractors.

324. The health and safety impacts on workers to consider during installation/ minor works (construction) phase will include:

- Fire hazards due to cigarette smoking, mishandling of electrical wiring, short circuits, dispersed waste containing paper that can easily catch fire, etc.
- Electrocution hazards: Cutters, pliers, hammers, screw drivers, and other tools such as cable jointers will be commonly used during installation activities. Using such tools on electrical wiring poses electrocution hazards to workers if such tools are not properly insulated, PPEs are not properly worn, and untrained workers are employed.
- Physical injuries to workers: Fall from height, overturning due to equipment, furniture and material placed on walkways, cuts due to sharp tools, etc.
- Inhalation of dust as a result of civil works.
- Noise generated from construction activities.

- Covid-19: A technician/worker having Covid-19 may spread virus to others if undetected. Workers may also avoid SOPs mandatory at workplaces.
- Unavailability of adequate, separate/ all-inclusive and sufficient facilities for temporary construction, installation, dismantling staff

6.9.3 Mitigation Strategy for Installation and Construction

325. The labor management procedures in accordance with ESS2 "Labor and working conditions" will be prepared and implemented to avoid the social risks and minimize the adverse social impacts from the project activities pertaining to dismantling, installation and construction of portal scanners and Remote Image Analysis Centre. In addition, the mitigation strategy for this phase include:

- Workers engaged for installation of x-ray-based scanners will be oriented on safety requirements.
- Installation of x-ray-based scanners to be performed under strict guidelines of manufacturer as well as the SOPs developed for installation phase.
- An emergency exit plan of the building will be prepared and people working in the building/office will be trained in following the exit plan.
- Assess and certify the integrity of identified buildings (without damages such as cracks, loose wiring, loose texture, etc.) for installation of scanners and sensitive equipment.
- Assess and certify that the building is earthquake resistant/safe.
- Proper cooling arrangements (air conditioners) will be ensured in the rooms where ICT equipment will be installed.
- Ensure concealed and insulated wiring, no open joints, no contact between joints and wood/paper, ensure no loose connection in electrical wiring.
- Keep all types of fire extinguishers in working condition at all times.
- Provide training for staff/workers on the use of fire extinguishers.
- Install smoke detectors and fire alarms before commencing installation activities.
- Avoid using carpeting in the areas where equipment is installed.
- Only trained workers to perform installation activities.
- Adequate PPEs including gloves and rubber boots to be provided to workers by the Contractor. Water sprinkling to be ensured to suppress the dust.
- Excavated material as well as waste will be kept under cover to avoid the spread of dust from these sources.
- Workers will also be instructed in safe lifting techniques for heavy equipment such as computer monitors.
- In case of an incident/accident, the FBR will notify the WB within the 24 hours of the incident. An Incident report form is provided at Annex 3 to be used for reporting of an incident.
- Clearance of site after completion: On completion of the works, the Contractor will clear away and remove all materials and rubbish and temporary works of every kind. The site will be left clean and in a condition to the satisfaction of the PRRP Environmental and Social Focal Person or Environmental Management Specialist.

- Capacity building and training of personnel with respect to environment, health and safety must be mandatory to all at regular intervals throughout the period of contract.
- Workers health and fitness must be evaluated before hiring for work, all HSE protective measures will be required to be designed during the site specific management plans preparation.
- Ensure that acceptable facilities are provided at workers' compounds (e.g. health services, water and sanitation facilities and recreational facilities).
- Traffic management plan indicating speed limits, route access plans and road signs to be followed in site management must be prepared and implemented from the beginning of project works.

6.9.4 Labor Working and Health Conditions as a result of Natural Disaster (Floods) and Fire Emergency during dismantling and installation

326. Activities under dismantling and retrofitting could also generate safety concerns for the on-site workers from small retrofitting works. It is important to note that since the project site offices are present in Karachi which is prone to monsoonal rains/urban flooding. The urban flooding/ rain in past has caused severe damage to equipment, workers exposed to electrocution thus extra care is required to reduce the safety risks on workers at the site office. The labor working on site is also at the risk from human emergencies e.g. fire. As the component 2 related activities are associated with installation of ICT equipment, the electrocution risks could be intensified through aforementioned emergencies.

Mitigation Measures

- Electrocution during urban flooding could be prevented by protecting the equipment/cables with heavy duty ties/nylon cables and checking for leakages/ weak/ unprotected ceiling/ cracks. It may be noted that the FBR and PCS has functional storm water drainage reported in the baseline that would prevent the risks of technical failure due to water seepage.
- Assess and certify the integrity of identified buildings (without damage such as cracks, loose wiring, loose texture, etc.) for installation of scanners and sensitive equipment.
- Training the on-site workers through HSE training and plans integrated with emergency management (fire safety) is required. Emergency preparedness and Response training is also proposed as part of ESCP.
- Emergency preparedness and response plan under the occupational health and safety protocols

6.9.5 Community Health and Safety from E-waste disposal

327. *Community health and Safety* (ESS4) concerns include those related to e-waste/other waste where it is not properly segregated, handled, recycled and disposed. The environmental baseline highlights that the E-waste handlers/ Scrappers are usually informal enterprises and individuals insufficiently handling and dumping the e- waste having toxic material in open/unattended places posing health risks to exposed community.

Mitigation Measures

- As per the environmental impact analysis and the e waste management plan, e-waste disposal will be ensured through certified/registered local scrap dealers.
- FBR will engage the licensed scrap dealer to ensure the safe disposal and recycling of the e waste
- Training to be provided on e -waste management protocols

6.9.6 Temporary suspension of taxpayers services due to dismantling and installation

328. In the dismantling and installation phase, discontinuation of services to users including taxpayers and tax consultants may be anticipated, especially for the project component 2 activities which could cause grievances and frustration among FBR clients. Thus FBR must inform the clients through social media outlets/ web services about the temporary suspension of the services due to up-gradation either as part of the project or in case of system failure as a result of unforeseen circumstances (floods or fire).

Mitigation Measures

- Prepare a communication plan in anticipation of all such suspensions, temporary and otherwise. This Plan will be prepared in tandem with the SEP of the Project.
- Disclosure and information transparency with clients through text messages and print/ electronic media

7 Environmental and Social Management Plan (ESMP)

7.1 General

329. The environmental and social management plan (ESMP) presented below documents the impacts identified in this ESMP, the mitigation measures to manage and control those impacts to acceptable levels in accordance with the laws of Government of Pakistan as well as the World Banks ESF, and the monitoring activities that are to be undertaken as part of the PRRP to confirm that the mitigation actions have been effective in achieving said objectives or to initiate changes in the actions required. Therefore, this ESMP will be a tool to manage and monitor environmental impacts and specifically focuses on implementation of mitigation measures on ground against environmental and social impacts.

330. Institutional arrangements for the implementation of ESMP are critical to ensure PRRP activities do not harm the environment or human health. This ESMP defines the responsibilities of the sub-project proponent and contractors to comply with the mitigation measures against every potential impact discussed in the ESMP. Therefore, this ESMP also details the institutional arrangements, assesses the current capacities, and proposes additional capacity building measures that will be put in place as part of the project implementation. This will ensure that systems are in place for effective procedures of environmental and social monitoring and control of the project impacts and mitigation measures, throughout the life of the project. Finally, this section of the report provides the required implementation schedule and costs for the proposed mitigation and monitoring.

Table 19: Environmental and Social Management Plan

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
Procurement and Design Phase								
Infrastructure and regulatory requirements for x-ray-based scanners	Proper infrastructure without cracks and other structural deformities will be required to use the scanners safely as per PNRA requirements. Regulatory requirements for acquiring scanners are to be met by scanner users.	• Pakistan Customs through qualified structural engineer will identify proper buildings (without damages such as cracks, structural weaknesses, loose wiring, etc.) for installation of sensitive equipment related to image processing. • Port authorities will obtain license from PNRA for acquiring scanners	Structural Engineer and ESFP	Certificate of status of building License for acquiring scanner from PNRA	Before acquiring scanner	EMS	Structural integrity certificate PNRA License	N/A
Carbon footprint of new IT equipment	Increase in CO_2 emissions due to increased energy demand and generation	• Equipment to be procured and installed will be energy efficient. • Bids evaluation to consider that computers, servers, laptops, and other ICT equipment will qualify to carry Energy Star labels. • Awareness/training program for staff on energy conservation practices will be developed and implemented. • Training on use of latest ICT equipment/ software and on related subjects will be provided.	Procurement Specialist and EMS	Bid evaluation criteria Training program	Once before every procurement advertisement	EMS	CE Marking	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
Water /Electricity/ Natural Gas/ Fuel Consumption	Increased demand for resources putting pressure on the existing utilization patterns	• Awareness/training program for staff on natural resources conservation practices will be developed and put in place.	EMS and ESFP	Training program	Once before first procurement advertisement	EMS	Training Plan	N/A
Waste management planning	Paper usage for printing and copying will be increased resulting in an increase in paper waste. E-waste generation and management.	• It will be ensured that Suppliers of laser printers and copiers provide guarantee that their equipment is compatible with high quality recycled paper. • Copiers or printers selected will provide duplexing (double siding). • X-ray based scanners to be procured as per PNRA regulations requiring imports by licensed importers. • Technical specifications will be included in bids/contracts to identify recyclable equipment or components/parts of equipment. • Contract agreement to contain a commitment from bidder to comply with the Environmental requirements. • Technical specifications in bids/contracts will provide details about how they should be safely disposed off at the end of life.	Procurement Specialist, Engineer and ESFP for scanners Contract Management Specialist Bidders	Bidding documents	Bid evaluations	EMS	General Waste Management and E-waste Management Plan	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		• FBR will ensure that auction of IT equipment also conforms to the environmental policies as regards management of e-waste e.g., certified e-waste recyclers with proper facilities is considered. • Successful bidder to confirm take back of equipment that reached end of its useful life. • E-waste Management Plan will be developed.						
Social Exclusion	Exclusion of low-IT literate tax payers, especially the female tax payers and differently - abled tax payers	• FBR to design tax administration framework to make procedures (appeals/penalties) more transparent and intelligible to taxpayers and staff through training. • Tutorials will be developed for low IT literate taxpayers/ or differently abled taxpayers or women taxpayers/ women led companies, taxpayers on the usage of e-services. • Options will be explored for disability supported software, e services portal/ interface. • Service centers/ customers services hotlines will be established for the	Social Management Specialist (SMS)	Tax Administration Framework Availability of procedures and tutorials	Before procurement of IT equipment begins	SMS	ESMP	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		inclusion of the female taxpayers and differently-abled tax payers for filling of returns etc. • Orientation and Outreach strategy will be implemented for launching of improved e-services for existing and new clientele (taxpayers) through training, seminars in close partnership with women associations and disability organizations.						
Social Conflict	Miscommunication and negative assumptions could lead to protects by the traders, business associations and other affected parties.	• FBR will implement Stakeholder Engagement Plan. • Grievance Redressal mechanism to be in place to address concerns of various parties (traders, businesses, women taxpayers or other marginalized) affected by the tax reforms and regimes. • Disclosure and information exchange through electronic, print and social media will be ensured. • FBR to conduct Social Conflict Analysis	SMS	SEP implemented GRM records	Quarterly throughout project life	SMS	SEP GRM	2,000,000
Data Security and Cyber Crime/Data Theft	Situation of disharmony and tension building in the FBR client over	• Firewalls will be provided to protect data centers with independent cloud services.	SMS, FBR Administratio n	Firewalls created ICT back up plan	Quarterly throughout project life	SMS	ESMP	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
	their data protection and security	• FBR will hire competent staff to provide oversight management and data protection • Backup ICT facilitation plan will be developed in case of system failure or cyber-attack						
Dismantling Phase								
Air Quality	Dispersion of dust causing inhalation and related health issues. Powder ink and particulate matter from printer cartridges causing inhalation problems.	• Workers to use masks for protection against dust (PM) inhalation. • Hand-held portable air quality monitoring device will be used for instantaneous air quality status. • Use vacuum cleaners to clean up dust. • Install the new equipment with enough space between the equipment and between the equipment and walls to facilitate cleaning in the future. • Large servers to be installed in interior rooms with no access and windows to outside to minimize influx of dust. • Server rooms will be ventilated to outside with care taken to prevent entry of rodents and other pests.	Supervisor/ Environmental and Social Focal Person	Availability and Use of PPEs Waste being stored in a dedicated area Visual Inspection	Weekly till completion of dismantling phase at respective site	Environmental and Social Focal Person/ EMS	ESMP NEQS WB EHS guidelines	3,600,000

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
Waste generation (general waste)	Generation of waste such as plastics, wood, metals, paper, cardboard boxes, packing materials, etc. will create waste management issues. Waste of different types end up in ecosystem thereby polluting environment and requiring resources for disposal such as land, money, and human resources.	• Dismantling of any previously installed vehicle/container scanner to follow the decommissioning plan prepared for the specific scanner at the time of its installation and available with port authorities. • Secure dismantling and storage areas with tape or signs allowing everyone to stay away. No unauthorized entry in storage area. • Daily cleaning and clearing of the dismantling sites will be ensured. • No stacking of dismantled equipment beyond 3 feet height. • No open dumping or storage of waste. Identify storage area with markings for storing useful and discarded materials separately, within these 2 areas provide space for different types of materials and mark accordingly). Identify equipment that can be repaired/ refurbished and reused to extend its useful life thus minimizing the e-waste. • Provide container/box for collecting and storing	Supervisor/ Environmental and Social Focal Person	Use of PPEs Waste being stored in a dedicated area Availability of waste collection containers Waste inventories Auction record Physical observation of work areas	Weekly till completion of dismantling phase at respective site	Environmental and Social Focal Person/ EMS	ESMP WB EHS guidelines	2,250,000

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		different types of wastes. The waste containers will be labeled as per type of waste. • Collect and store waste in storage area. • Develop inventories of dismantled equipment and wastes generated. • Under no circumstances shall the workers dispose of any material in environmentally sensitive areas. • Handover all wastes having economic value produced by PRRP activities to waste/scrap dealers through auction.						
E-waste production and management	Generation of E-waste containing toxic elements that pose serious risks to the Environment.	• Implement the E-Waste Management Plan (Annex 2). • Develop inventories of dismantled equipment and E-waste generated. • Create awareness among people engaged in E-waste recycling/ disposal business. • Develop guidelines and make them part of the contract with scrap purchasers to ensure safe disposal of E-waste. • Purchaser of scrap (E-waste) to follow specific	Supervisor/ Environmental and Social Focal Person Contract Management Specialist	EWMP implemented	Quarterly	Environmental and Social Focal Person/ EMS	ESMP EWMP WB EHS guidelines	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		guidelines on E-waste recycling and disposal. • E-waste will be handed over to recyclers through auction within 3 months.						

Occupational Health and Safety	Fire hazards due to short circuits while removing the wiring and cabling. Electrocution hazards to workers. Other Physical injuries to workers are anticipated during dismantling activities	• Labor Management Procedures implemented at each work site.
		• Environmental and social screening checklists to identify labor types/ contractual agreements/ safety protocols etc.
		• Emergency exit plan for the building will be prepared.
		• Plan will be displayed at important places and training provided to all concerned.
		• An assembly area will be designated as per exit plan.
		• Workers will be provided with PPEs, and required to wear:
		  o Face masks for protection against dust as well as Covid-19
		  o Gloves to protect hands from sharp corners on the equipment.
		  o Safety boots for workers at all sites.
			Supervisor/ Environmental and Social Focal Person	Availability of labor management procedures
				
				Availability of emergency exit plan
				
				Use of PPEs by workers
				
				Availability of Fire Extinguishers
				
				Ventilation provisions
				
				Implementation of Measures to prevent entry of rodents into offices
				
				Work schedule(s)
				
				Availability of first aid facility
					Weekly till completion of dismantling phase at respective site	Environmental and Social Focal Person/ EMS	WB EHS guidelines
							
							Labor Management Procedures
								1,800,000

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		• Ensure workers wear face masks and other PPEs. • Workers will be instructed in safe lifting techniques for heavy equipment such as computer monitors. • In case of an incident/accident, the FBR will notify the WB within the 24 hours of incident. Incident report form at Annex 3 to be used for reporting any incident. • Paste Covid-19 SOPs on boards and at important places for the information of workers. Workers to follow Covid-19 SOPs. • Encourage workers for Covid-19 vaccination. Before the start of dismantling activities, inspect wiring for any damage, insulate any open point/joint with tape, only qualified/trained workers to perform such operations. • Secure dismantling and storage areas with tape or signs allowing everyone to stay away. No unauthorized entry in storage area. Daily cleaning and clearing of the dismantling sites to be ensured.						

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		• No stacking of dismantled equipment beyond 3 feet height. • Ventilation to be available in storage area. • Control access of rodents in storage area.						
Covid-19	A worker having Covid-19 may spread a virus to others if undetected. Workers may also avoid SOPs mandatory at workplaces.	• Only asymptomatic workers/staff/visitors will be allowed entry. • Individuals must maintain a minimum distance of 6 feet in common places as far as feasible. • Always use face covers/masks. They must be worn properly to cover the nose and mouth. Touching the front portion of mask/face covers to be avoided. • Practice frequent hand washing with soap even when hands are not visibly dirty. Use of alcohol-based hand sanitizers can be made wherever feasible. • Respiratory etiquette to be strictly followed. This involves strict practice of covering one's mouth and nose while coughing/ sneezing with a tissue/handkerchief/flexed	Supervisor/ Environmental and Social Focal Person	Temperature record of suspected workers Use of face masks by workers Availability of hand sanitizers Signboards and posters on Covid-19 instructions	Weekly till completion of dismantling phase at respective site	Environmental and Social Focal Person/ EMS	Covid-19 SOPs WB EHS guidelines	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		elbow and disposing off used tissues properly. • Avoid handshaking. • No spitting anywhere. • Self-monitoring of health by all and reporting any illness at the earliest to the supervisor. • Proper cleaning and frequent sanitization (at least twice a day) of the workplace, particularly of the frequently touched surfaces, will be ensured. • Ensure regular supply of hand sanitizers, soap and running water in the washrooms. • The number of people in the elevators will be restricted, duly maintaining physical distancing norms. • Proper disposal of face covers / masks / gloves left over by visitors and/or employees in covered bins, to be ensured. • If suspected, guide the suspected Covid-19 person to consult health services						
Installation Phase								
Infrastructure improvement for	Weak infrastructure poses risks of damage to	• Proper building to be identified during design phase as mentioned under	Structural Engineer and ESFP	Certificate of fitness of building	Once at design stage	Environmental and Social	ESMP	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
installation of scanners	equipment as well as disruption to services.	mitigations for design phase.				Focal Person/ EMS		
Civil works for infrastructure improvement for scanners	Civil works pose health risks as well as disruption of services near work site. Wastes from civil works are also of concern for disposal.	• Mitigation measures for dust control, waste management and traffic management provided in relevant sections below.	ESFP	Physical observations	Weekly during installation phase	Environmental and Social Focal Person/ EMS	ESMP WB EHS guidelines	N/A
Traffic Management	Disruption of movement of traffic as well as pedestrians. Health risks to drivers and machine operators near civil work sites	• Traffic management plan to be developed where flow of traffic is expected to be disrupted as identified by the Environmental and Social Focal Person	Contractor of civil work and ESFP	Traffic management plan	Weekly during installation phase	Environmental and Social Focal Person/ EMS	ESMP WB EHS guidelines	N/A
Waste generation and management	Waste such as packing materials (plastics, foams, cardboard, tapes, paper, etc.) add to the municipal waste if not properly managed. In such a way these wastes pollute the environment and create nuisances including smell and diseases. Civil work wastes such as excavated soil, wasted construction	• Provide separate containers/ boxes for collecting and storing different types of waste, handover to scrap dealer as per ESMP. • No open dumping or storage of waste. Identify storage area with markings for storing useful and discarded materials separately. Within these 2 areas provide space for different types of materials and mark accordingly. • Civil works waste from excavation as well as from mixtures of new materials	Supervisor/ Environmental and Social Focal Person	Availability of waste collection containers Physical observation of waste storage area Physical observation of work site after completion of installation	Weekly during installation phase	Environmental and Social Focal Person/ EMS	ESMP WB EHS guidelines	1,200,000

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
	material and wastewater	to be stored under cover at designated place. • Such wastes to be transported to proper/ designated waste disposal sites on the same day. • E-waste: If any E-waste is generated during installation phase, the Contractor will collect it and take it back for recycling. This waste will not be handled by PRRP. • Such E-waste will not be mixed with other wastes. • Under no circumstances shall the workers dispose of any material in environmentally sensitive areas. • All waste to be handed over to waste/scrap dealers through auction. • PRRP will avoid wasting paper from packing and will keep all such papers under inventory controls for reference and taking guidance when need arises. Such papers will be kept in packing boxes, marked with identity on each box and stored in the storeroom. In such a way a large number of boxes will be utilized thereby						

Phase / Aspects	Implementation Plan				Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility		Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		reducing the quantity of waste. • Good housekeeping: The installation staff will always follow a 'good housekeeping' policy. This will include, but not necessarily be limited to the following: Ensure workers are informed about the importance of good housekeeping; Ensure that mitigation measures for site cleanliness are implemented; Remove rubbish at frequent intervals, leaving the site clean and tidy; Remove food waste; all temporary signs, boards, and posters to be removed as soon as the work is completed; Outside workers also be allowed to use toilet facilities and other welfare facilities such as canteen, etc.							
Occupational Health and Safety	Fire hazards due to mishandling of electrical wiring, short circuits, dispersed, cigarette smoking, etc. Electrocution hazards.	• An emergency exit plan of the building will be prepared and people working in the building/ office will be trained in following the exit plan. • Workers engaged for installation of x-ray-based	Supervisor/ Environmental and Social Focal Person		Availability of fire extinguishers Training record Availability of smoke detectors	Weekly during installation phase	Environmental and Social Focal Person/ EMS and SMS	WB EHS guidelines	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
	Physical injuries to workers such as fall from height, overturning due to equipment, furniture and material placed on walkways, cuts due to sharp tools, etc.	scanners to be briefed on safety requirements. • Installation of x-ray-based scanners to be performed under strict guidelines of manufacturer as well as the SOPs developed for installation phase. • Proper cooling arrangements (air conditioners) will be ensured in the rooms where ICT equipment will be installed. • Ensure concealed and insulated wiring, no open joints, no contact between joints and wood/paper, ensure no loose connection in electrical wiring. • Keep CO_2 fire extinguishers ready all the time. • Provide training for staff/workers on the use of fire extinguishers. • Install smoke detectors and fire alarms before commencing installation activities. • Do not use carpeting in the areas where equipment is installed. • Only trained workers to perform installation activities.		Use of PPEs and face masks by workers Physical observation work area Display of Covid-19 SOPs at important places				

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		• Proper PPEs including gloves and rubber boots to be provided to workers by the Contractor. Other PPEs include: o Face masks for protection against dust as well as Covid-19 o High visibility vest for workers in the vicinity of project activities o Gloves for civil works o Hard hats during civil works o Ear plug during construction activities o Safety boots for workers • Excavated material as well as waste will be kept under cover to avoid the spread of dust from these sources. • Workers will also be instructed in safe lifting techniques for heavy equipment such as computer monitors. • In case of an incident/accident, the FBR will notify the WB within the 24 hours of incident. Incident report form at Annex 3 to be used for reporting any incident. • Clearance of site after completion: On						

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		completion of the works the Contractor will clear away and remove all materials and rubbish and temporary works of every kind. The site will be left clean and in a condition to the satisfaction of the PRRP Environmental and Social Focal Person or Environmental Management Specialist.						
	Over-exertion, and ergonomic injuries and illnesses, such as repetitive motion, over-exertion, and manual handling, are among the most common causes of injuries in construction	• Train workers in lifting and materials handling techniques in construction and decommissioning projects, including the placement of weight limits above which mechanical assists or two-person lifts are necessary • Plan work site layout to minimize the need for manual transfer of heavy loads • Select tools and designing workstations that reduce force requirements and holding times, and which promote improved postures, including, where applicable, user adjustable workstations • Implement administrative controls into work processes, such as job						

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		rotations and rest or stretch breaks						
	Slips and falls associated with poor housekeeping	• Implement good house-keeping practices, such as sorting and placing loose construction materials or demolition debris in established areas away from foot paths • Clean up excessive waste debris and liquid spills regularly • Locate electrical cords and ropes in common areas and marked corridors • Use slip retardant footwear						
	Risk of falls from height	If fall hazards exist, a fall protection plan will be in place which includes one or more of the following aspects, depending on the nature of the fall hazard: • Training and use of temporary fall prevention devices, such as rails or other barriers able to support a weight of 200 pounds, when working at heights equal or greater than two meters or at any height if the risk includes falling into operating machinery, into water or other liquid, into hazardous substances, or						

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Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		through an opening in a work surface • Training and use of personal fall arrest systems, such as full body harnesses and energy absorbing lanyards able to support 5000 pounds, as well as fall rescue procedures to deal with workers whose fall has been successfully arrested. The tie in point of the fall arresting system should also be able to support 5000 pounds • Use control zones and safety monitoring systems to warn workers of their proximity to fall hazard zones, as well as securing, marking, and labeling covers for openings in floors, roofs, or walking surfaces						
	Risk of being struck by objects	• Use a designated and restricted waste drop or discharge zones, and/or a chute for safe movement of wastes from upper to lower levels • Conduct sawing, cutting, grinding, sanding, chipping or chiseling with proper guards and anchoring as applicable						

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		• Maintain clear traffic ways to avoid driving heavy equipment over loose scrap • Use temporary fall protection measures in scaffolds and out edges of elevated work surfaces, such as handrails and toe boards to prevent materials from being dislodged • Evacuate work areas during blasting operations, and using blast mats or other means of deflection to minimize fly rock or ejection of demolition debris if work is conducted in proximity to people or structures • Wear appropriate PPE, such as safety glasses with side shields, face shields, hard hats, and safety shoes						
	Labor Working and Health Conditions as a result of Natural Disaster (Floods) and Fire Emergency	• Electrocution during urban flooding to be prevented by protecting the equipment/cables with heavy duty ties/nylon cables and checking for leakages/ weak/ unprotected ceiling/ cracks. • Assess and certify the integrity of identified						

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		buildings (without damage such as cracks, loose wiring, loose texture, etc.) for installation of scanners and sensitive equipment. • Train on-site workers through HSE training and plans integrated with emergency management (fire safety).						
	Temporary suspension of taxpayers services due to dismantling and installation	• Prepare a communication plan in anticipation of all such suspensions, temporary and otherwise. This Plan to be prepared in tandem with the SEP of the Project. • PRRP to ensure disclosure and information transparency with clients through text messages and print/ electronic media						
Covid-19	A technician/worker having Covid-19 may spread virus to others if undetected. Workers may also avoid Covid-19 SOPs mandatory at workplaces.	• Same actions as proposed for dismantling phase will be followed.	Supervisor/ Environmental and Social Focal Person	Temperature record of suspected workers Use of face masks by workers Availability of hand sanitizers Signboards and posters on	Weekly till completion of installation phase at respective site	Environmental and Social Focal Person/ EMS	Covid-19 SOPs WB EHS guidelines	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
				Covid-19 instructions				
Operational Phase								
Licensing and operation of x-ray- based scanners	Operation of x-ray-based scanners is subject to licensing from PNRA and following the guidelines of PNRA for safety issues.	▪ Port authorities to apply for license for use of x-ray-based scanners following the PNRA regulations PAK/908 (Rev. 1). ▪ Pakistan Customs will coordinate with PNRA to develop SOPs in accordance with the manufacturer's guidelines, PNRA advice and World Bank requirements. ▪ Provide training to users on safe use of scanners in accordance with manufacturer's guidelines and/or SOPs. ▪ Pakistan Customs to coordinate with PNRA for regular monitoring of radiation leakages and radiation exposure. ▪ End of life disposal of x-ray-based scanners will follow the PNRA requirements as per Decommissioning Plan as well as manufacturer's guidelines on disposal of such equipment. ▪ For the safety of workers and operators, the project	Port Authorities/Pakistan Customs	License to use scanners from PNRA SOPs on safe use of scanners Training record Decommissioning plan	Prior to use scanners	Port Authorities Environmental and Social Focal Person	PNRA Regulations	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		will ensure that an exclusion zone will be established to protect workers from the impact of x-ray radiation. Establishment of exclusion zone will depend upon the type and requirement of specific scanner.						
Air quality	Operation of equipment, especially printers, may produce ozone and organic volatiles (e.g., formaldehyde) through electrical sparks. Hardcopy devices emit ultrafine particles (d_p < 100 nm) during their operation. Laser printers are usually high emitters of ultrafine particles (< 0.1 μm).	▪ Ensure that equipment such as photocopiers, laser printers and faxes are situated in a well-ventilated area. ▪ Equipment will not be allowed to occupy corridors or means of escape because of the increased fire risk and impedance of escape routes. ▪ All office equipment to be regularly serviced and maintained to ensure it is in good working order. ▪ In mechanically ventilated office areas, ESFP will ensure the ventilation is operating at all times when printers are likely to be used. ▪ Ensure ventilation is in operation before people arrive at the office every day.	Admin Staff/ Environmental and Social Focal Person	Ventilation provisions Location of installed equipment	Monthly	Environmental and Social Focal Person	ESMP WB EHS guidelines	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		▪ In non-mechanically ventilated offices, ensure fresh air is supplied via open doors and windows.						
Waste generation and management	The wastes from operational of ICT equipment will comprise paper, food waste and E-waste including discarded components of ICT equipment (e.g., keyboards, mouse, wires, monitors, servers, etc.), bottles of copier/printer ink, and printer cartridges as well.	• Waste bins to be provided in each section of the building. • Do not mix food waste with general waste (paper, plastics, etc.). • Separate waste bins to be provided to collect organic and inorganic waste. These waste bins will be labeled. • Food waste to be collected and thrown in municipal waste dump on daily basis. • All general (other) wastes to be collected and stored in a dedicated storage area. • Segregate the wastes for ease of identification and disposal. • Follow E-waste Management Plan for disposal of E-waste. • General waste to be auctioned or if low in quantity, may be dumped in municipal waste collection bins. • Introduce paperless or least paper-based work practices.	Admin Staff/ Environmental and Social Focal Person	Availability of waste collection bins Availability of waste storage area Implementation of E-waste management plan Training record	Quarterly	Environmental and Social Focal Person	ESMP EWMP WB EHS guidelines	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		• Provide training on waste management including awareness creation on reduction in use of paper. • If required to protect confidentiality, use a paper shredder.						
Emergency procedures, fire prevention and control	The risk of fire due to short circuits for which loose/open wiring or rodents may be held responsible. Health emergencies may also arise at the workplace. Similarly, fumes of toxic gases may result due to fires that burn electronic components.	• Each office will ensure that emergency procedures are in place. • Emergency procedures for scanners will be developed in coordination with PNRA at licensing stage. • The emergency procedure will contain emergency phone numbers and the method of notifying the authorities. Contact numbers for the key staff of the office will also be included. • Only trained workers to perform routine services for repair and maintenance. • Admin staff to maintain records of repair and maintenance works. Admin staff will record all incidents such as short circuits, fires, etc. • Admin staff to also keep record of reasons of incidents and actions	Admin Staff/ Environmental and Social Focal Person	Display of Emergency Procedure at important places Availability of record of repair and maintenance works Record of incident and actions taken Training record	Quarterly	Environmental and Social Focal Person	ESMP WB EHS guidelines	N/A

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	Proposed Mitigation Measures	Responsibility	Monitoring Parameters	Frequency	Responsibility	Compliance Criteria	
		taken to avoid such incidents in future.						
Rodent control	Rodents (Mice) carry diseases and parasites, cause damage from gnawing building fixtures and fittings such as electrical wiring, network cabling and contaminate food and surfaces with dirt, droppings, and urine.	• Admin staff of each office building to follow the measures to prevent entry of rodents into offices attached as Annex 4.	Admin Staff/ Environmental and Social Focal Person	Implementation of measures to prevent entry of rodents into offices	Quarterly	Environmental and Social Focal Person	ESMP Measures to prevent entry of rodents into offices	N/A

7.2 Institutional Arrangements

331. PRRP will be implemented in FBR offices, sea ports, airports and custom offices across Pakistan. Each project site will be required to implement ESMP and report compliance status in accordance with the set monitoring and reporting frequency. This section presents the roles and responsibilities of various actors in implementing the ESMP.

332. The following structure for institutional arrangements is proposed for implementation of ESMP:
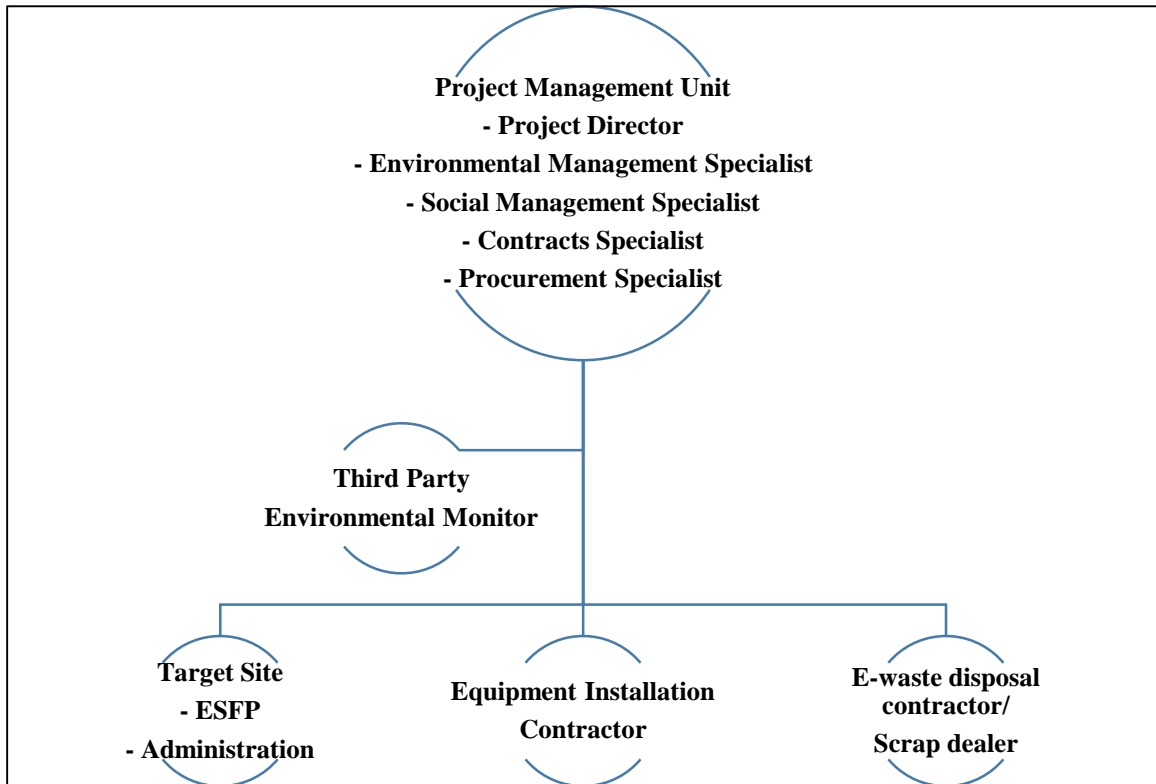
Figure No. 5: Proposed institutional structure for ESMP implementation

7.3 Project Management Unit

333. FBR is implementing PRRP in Pakistan. A dedicated Project Management Unit (PMU) has been established under the Program Office of PRRP to assist in the implementation of the project activities. FBR has appointed a Project Director and Consultants for the PMU while support staff will be hired in 2022 as per project requirements.

334. The PMU will have the responsibility for implementation of project activities including, but not limited to, developing implementation documents, guidelines, reporting, monitoring and evaluation, environmental and social management, procurement, financial management, audit and disbursements, as well as coordination with the line agencies and the World Bank. The PMU will be adequately resourced with skillsets and

competencies required for project implementation and monitoring. Roles and responsibilities of the PMU have been detailed in Annex 11.

7.3.1 Environmental Management Specialist

335. The Environmental Management Specialist (EMS) will be based at Federal level in the PMU. These Specialist will be responsible for overall implementation of Environmental Mitigations included in the ESMP. The Specialist will also be responsible for the compliance of ESMP and for the development of guidelines and procedures as per ESMP related to environmental compliance. He/She will be responsible for effective implementation, internal monitoring, and progress reporting on ESMP environmental compliance. The Specialist will have close coordination with line departments to address their concerns regarding project interventions. The Specialist will coordinate with procurement specialist and contracts specialist for environmental mitigation measures concerning the design phase. The ESMP and EWMP will be implemented under the overall supervision of the project director (PD). PMU will be responsible for hiring of Contractor and supervision of contractor's work on the sites in accordance with ESMP.

7.3.2 Social Management Specialist

336. The Social Management Specialist (SMS) will also be based at Federal level in the PMU. The Specialist will be responsible for overall implementation of Social Mitigations included in the ESMP. The Specialist will also be responsible for the compliance of ESMP and for the development of guidelines and procedures as per ESMP related to social compliance. He/She will be responsible for effective implementation, internal monitoring, and progress reporting on social compliance. The Specialist will have close coordination with line departments to address their concerns regarding project interventions. The Specialist will coordinate with procurement specialist and contracts specialist for social mitigation measures concerning the design phase.

7.3.3 Environmental and Social Focal Person

337. PRRP activities will be implemented in FBR offices across Pakistan that requires implementing and managing the ESMP provisions at all offices. In view of this Environmental and Social Focal Person (ESFP) in each office will be nominated by the office concerned at sub project office level to act as the key person for implementation, monitoring and reporting compliance to ESMP at the office concerned. Necessary guidance and training will be provided to the ESFP concerning the responsibilities for ESMP implementation. The roles and responsibilities of ESFP are provided in Annex 12.

7.3.4 Independent Third-Party Environmental Monitor

338. PMU will hire an Independent third-party environmental monitor (consultant) to monitor the overall implementation process and compliance of PRRP to ESMP on an annual basis.

7.3.5   Equipment Installation Contractor

339. The Equipment Supply and Installation Contractor will be responsible for implementation of specific ESMP mitigation measures. All the required liabilities under the ESMP, World Bank guidelines and applicable laws will be fulfilled by the contractor at the respective project site. ESMP will be an integral part of the contract documents and details will also be included in the bid to address the budget for environmental and social mitigation measures. If required, Contractor will hire requisite staff to ensure compliance of ESMP. PMU will ensure that the following plans and documents have been prepared, while the contractor will ensure that these plans are being implemented:

   a. Electronic Waste Management Plan.
   b. Measures to prevent entry of rodents into offices.
   c. Covid-19 SOPs.
   d. Grievance Redress Mechanism.

340. Contractor will ensure that the proposed project activities are in compliance with the ESMP and World Bank operational policies. Provision will be made in the agreement with the contractor to:

   • Train staff on a regular basis in Environment, Health, Safety and social compliance
   • Implement ESMP and site-specific mitigation measures
   • Ensure safe working conditions
   • Provisions of PPEs to workers
   • Report every incident/accident to PMU
   • Monitor regular compliance with environmental and social mitigation measures as per ESMP.

7.4   ESMP Implementation Mechanism

341. The following are the steps of implementation of ESMP, also shown in figure below:

   1) Relevant sub-project required under PRRP will be identified.
   2) After identification of sub-project, the environmental and social screening checklists (given as Annexure-13) of this ESMP will be filled in by the Environmental and Social Focal Person of relevant FBR office and sent to the PMU.
   3) Environmental Management Specialist will review and finalize the checklist in coordination with Social Management Specialist by providing mitigation measures for the identified impacts.
   4) EMS will endorse the filled screening checklists – EMS may seek clarity and further information from the sub-project office if needed.
   5) The finalized document with endorsement of EMS will be shared with PD, PRRP, Procurement Specialist and Contracts Specialist for information and ensuring implementation of necessary actions on their part and inclusion in the bidding document while initiating the activities at sub-project level.

6) The signed checklist will then be shared with concerned ESFP for implementation of mitigations.
7) Mandate to monitor and evaluate the environmental compliance will be with the Environmental Specialist and the ESFP at sub-project level.
8) Mandate to monitor and evaluate the social compliance will be with the Social Specialist and the ESFP at sub-project level.

7.4.1 Sub-Projects Environmental and Social Screening

342. All activities proposed for the project shall undergo initial screening through several filters that include screening environmental and social impacts.

343. The screening will be done by the ESFP of the relevant FBR office where a sub-project will be implemented. ESFP will use the checklist provided for this screening at Annex 13. S/he will do the screening in close coordination with the administration department concerned. The result of the screening will be reviewed, and the final endorsement will be made by EMS at PMU level.

344. The sub-projects will be classified under one of the 2 categories: Category A (Medium), Category B (Low or no impact). For sub-projects classified as category A, PRRP will communicate the applicable mitigation measures to the relevant ESFP for implementation.

345. The sub-projects that may have minimal or no adverse environmental impacts (i.e., Category B) will only require the completion of an environmental screening report/checklist and mitigation measures will be implemented accordingly.

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┌─────────────────────────────────┐
│      Sub-project identified      │  ◄ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
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                 │                    ┌──────────────────────────────────┐
                 ▼                    │ EMS may ask ESFP for clarity and  │
┌─────────────────────────────────┐  │     further set of information     │
│ Environmental and social         │  └──────────────────────────────────┘
│ screening checklist filled        │ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
│ by ESFP and sent to EMS          │
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│ Finalization & endorsement of    │
│ screening checklist by EMS       │
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│ EMS to share checklist with PMU  │
│ Team Members                     │
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│ Finalized screening document with │
│ endorsement of EMS shared with    │
│ ESFP                             │
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│ Monitoring of compliance by ESFP  │
│ and Contractor – submission of    │
│ report to EMS                    │
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│ Submission of quarterly monitoring│
│ report to World Bank             │
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Figure 6: Steps for ESMP Implementation

7.5 ESMP Monitoring Plan

7.5.1 Internal Monitoring

346. Regular monitoring of ESMP compliance is an integral part of the overall environmental compliance of PRRP. Overall supervision of ESMP will be with the PD, PMU. Environmental Management Specialist, Social Management Specialist and Environmental Focal Person will supervise the ESMP activities on respective sites on a regular basis.

347. ***Internal Monitoring at sub project level:*** The focal person at each sub project office will conduct regular internal monitoring as per the frequency in the ESMP and will submit a report to PMU using the template at Annex 5. Necessary training on monitoring and reporting will be provided to focal persons.

348. ***Internal Monitoring at PMU/Federal level:*** Environmental Management Specialist and Social Management Specialist will conduct site visits of selective sites in each quarter to carry out the ESMP monitoring on regular basis as required by ESMP. ESFP from all sites will submit monitoring reports to EMS and SMS in PMU for review and, if required, seeking guidance for necessary corrective action. SMS will develop a quarterly report on social compliance and will share with the EMS. Environmental Management Specialist will compile all information and develop an overall quarterly monitoring report as per the template at Annex 5 and will submit the same to PD, PRRP for onward submission to World Bank.

7.5.2 External Monitoring/Third Party Environmental and Validation

349. External Monitoring will be used to ensure that PRRP activities have been undertaken in line with the ESMP. Third Party Validation (TPV) exercises, conducted through an independent Third-Party Environmental and Social Monitor, will be carried out on an annual basis to evaluate the overall ESMP compliance and implementation progress, and to ensure that the mitigation measures are implemented as per the mitigation plan. In case of any deviation, corrective actions will be taken where necessary. For the TPV, environmental and social consultants with relevant expertise and previous experience will be engaged.

7.6 ESMP Reporting

350. In accordance with the ESMP requirements, monitoring will be conducted by the party responsible and monitoring reports will be prepared on a regular basis.

7.6.1 Reporting at Sub Project Level

351. Environmental and Social Focal Person in each sub project office will compile quarterly ESMP/E&S screening checklists implementation progress reports and submit them to the Environmental Management Specialist in PMU. The template at Annexure 5 will be used for reporting progress.

7.6.2 Reporting at PMU/Federal Level

352. Environmental Management Specialist will review the reports from all sub project offices and will compile the data into a single quarterly report for submission to the World Bank. Below table shows the periodic distribution of reports to be prepared for the PRRP.

Table 20: Distribution of ESMP progress reports

No.	Report	Prepared by	Reviewed by	Distribution
1	Quarterly	Environmental and Social Focal Person, Social Management Specialist and Environmental Specialist	PD	World Bank
2	Annual	Third Party Validator	N/A	World Bank
3	Final completion report	EMS	PD	World Bank

353. The Quarterly Environmental and Social Monitoring Reports (QESMRs) will provide progress on implementation of mitigation measures, capacity building, and any other ESMP implementation activity carried out during the reporting quarter using a template (**Annexure 5**).

354. QESMRs will be prepared within one month of the completion of each quarter and will be shared with, among others, the World Bank.

7.7   Capacity Development and Training

355. Training for capacity building of the FBR staff at PRRP activity offices and contractors associated with ESMP implementation will be required for effective environmental and social management. Specific training on environmental and social impacts and mitigation will be arranged for the PMU staff, Environmental and Social Focal Persons, Contractors, staff and workers at FBR offices where PRRP activities will be implemented. The main objective of the training is to impart the necessary knowledge on environmental and social issues of concern and to enhance the technical capacity of staff associated with implementation, keep the PMU aware of the emerging environmental and social issues, and enable them to resolve those issues through corrective action planning.

356. From a monitoring perspective, training will aim to provide orientation to stakeholders to deliver their monitoring responsibilities in an organized and effective manner as per the requirement of the monitoring plan.

357. Tentative programs for capacity building and training are provided in the table below. Accordingly, 13 local level training workshops will be held throughout the life of the project. PMU may hold more training at any location depending upon the environmental and social compliance requirements. This includes annual refresher training. The training workshops will focus on environmental and social issues arising during ESMP implementation, E-Waste Management, mitigation measures, and health & safety. They will also focus on sensitizing the participants about assuring implementation of the ESMP, environmental responsibility and managing the environmental and social activities at respective sites.

Table 21: Tentative Capacity Building/Training Plan

Duration and type	Training Topic	Location	Participants	Frequency	Total No. of events
Two-day training workshop	ESMP design, objectives, need and use. Legal requirements (Legislations and World Bank's environmental and social framework); Managing environmental and social mitigation strategies of PRRP. Monitoring Mechanism, Documentation and reporting procedures.	Islamabad Peshawar Karachi Lahore Quetta Other locations	Islamabad and Hazara Division All of KP except Hazara Division Sindh Province Punjab Province Balochistan Province **Participant types:** ESFPs and Contractors	2021 2022 2023 2024	1 2 5 1
One day training workshop	Electronic Waste Management. Resource efficiency, energy conservation. E&S aspects of the x-ray scanners. Managing Health and Safety at workplace. Social Management of PRRP.	Islamabad Karachi	KP, North and Punjab Provinces Sindh and Balochistan Provinces **Participant types:** ESFPs from target offices	2022 2023 2024	1 2 1

7.8   ESMP Estimated Budget

358. The responsibilities for implementation of mitigation measures have been mentioned in the ESMP. The majority of the measures will be implemented by the contractors. A large number of mitigation measures require management controls and supervision; therefore, a budget is not required for those measures. However, costs will be involved for some mitigation measures and activities of ESMP. The estimated budget for ESMP implementation is provided in table below:

Table 22: Cost estimates for ESMP

No.	Description	Unit	Quantity	Unit rate PKR	Total rate PKR
1	Local trainings (including materials and logistics)	Training workshop	13	780,000	10,140,000
2	Third Party Validation (1 annual and 1 end of project report)	Report	2	1,000,000	2,000,000
3	Cost of PPEs: Each office to have: Dust Masks 20 Nos. Hand-held air quality monitor Rubber Gloves 12 pairs Hand sanitizers 250 ml 12 Nos. Hard hats 3 Nos. Safety boots 4 pairs	Set	45	120,000	5,400,000[55]
4	Waste Management: Each office to have: Plastic small size office waste bins: 10 Nos. Plastic 120 Ltr waste bins with wheels: 2 Nos. Container boxes for e-waste: 2 Nos.	Set	45	50,000	2,250,000[56]
5	Monitoring i.e., visits to sites	Day (inclusive of allowances and travel costs)	48	25,000	1,200,000[57]
6	Contingencies	5%			1,049,500
	Total				**22,039,500**

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[55] Cost distributed and reflected in table 19 against dismantling phase for PPEs under air quality PKR 3,600,000 and under OHS PKR 1,800,000.

[56] Cost reflected in table 19 mentioned against provision of equipment for waste management

[57] Cost mentioned in table 19 against cost on monitoring visits

8   Grievance Redress Mechanism

8.1   Overview and Scope

359. FBR has a Grievance Redress Mechanism which is based on intra as well inter organizational mechanisms. With respect to inter organizational mechanism, the FBR maintains an online Complaints section comprised of different parallel tiers depending on the nature of the complaint. Firstly, if an employee of FBR has a complaint, the same can be lodged with the Chairman FBR (which would be dealt under the guidelines of FBR Act, 2007) and if a taxpayer has a complaint regarding any malpractices on the part of tax officials, the same can also be forwarded to the Chairman FBR through the link available on FBR website. Secondly, an Integrity & Performance Management Unit (IPMU) has been established at FBR. The IPMU is further divided into two cells comprising of Integrity Management Cell (IMC) and Performance Management Cell (PMC). Thirdly, regarding the inter organizational GRM System, for the facilitation, technical and legal support of the taxpayers, the CRM (Customer Relationship Management) and Call Center has been established at FBR through which technical queries, software issues and filing related understanding as well as grievances of the taxpayers are addressed by teams comprised of call center agents, legal team and developers' team.

360. Regarding the inter organizational aspects, the complainant can lodge his/her complaint with the Office of the Federal Tax Ombudsman which serves as an appellate forum where any taxpayer can file an appeal against a decision taken by the tax authorities. It has a separate website explaining the role of the Ombudsman Office, maintains an online complaint system and provides information on its regional offices.

361. PRRP will have a grievance redress mechanism (GRM) which will be operational within PRRP to facilitate amicable and timely resolution of complaints and grievances of the stakeholders including project affected persons (PAPs) (male and female) regarding all environmental and social issues including but not limited to E-waste disposal by contractors.

362. The GRM proposed here spans the entire project implementation and will cater to both the directly and indirectly affected peoples/beneficiaries. Though the GRM proposed here has been designed to address environmental and social problems identified during implementation, it will also cater to manage any disconnects that emerge from the field level and that has significant implications for effective implementation of the sub-project interventions.

363. The core responsibility of developing and managing GRM will rest with the PRRP PMU in Islamabad. The PRRP target offices will serve as the secretariat for the Grievance Redress Committee that will be responsible for providing oversight on the entire GRM process at local level and monitoring of complaints management.

8.2   Objectives of the GRM

364. The GRM is consistent with the requirements of the FBR and World Bank Procedures & Guidelines of redress mechanisms to ensure mitigation of concerns by the affected persons, risk management, and maximization of environmental and social benefits. The overall objective of the GRM is therefore to provide a robust system of procedures and processes that provides for transparent and rapid resolution of concerns and complaints identified at the local level.

365. The GRM will be accessible to diverse stakeholders including workers, staff, recyclers, affected community, including women, senior citizens and other vulnerable groups. Culturally appropriate communication mechanisms will be used at all sub- project sites both to spread awareness regarding the GRM process as well as complaints management.

366. The mandate of the GRM will be to:

(i)   receive and address any concerns, complaints, notices of emerging conflicts, or grievances (collectively "Grievance") alleging actual or potential harm to affected person(s) (the "Claimant(s)") arising from Project;

(ii)   assist in resolution of Grievances between and among Project Stakeholders; as well as the various government ministries, agencies and commissions, CSOs and NGOs, and others (collectively, the "Stakeholders") in the context of the Project;

(iii) Conduct itself at all times in a flexible, collaborative, and transparent manner aimed at problem solving and consensus building.

8.3   Complaint Registration

367. Any person will have the option to lodge grievance / complaint using any of the following means:

1. *Through email:* Complaint can be registered through email to EMS available at esms@fbr.gov.pk
2. *Verbal registration via phone:* Affected person may contact respective FBR office via telephone and register complaint with Environmental and Social Focal Person. Complaint can be lodged via phone call to EMS at 0519219641.
3. ***Written complaint to be sent through courier to the PMU in Islamabad or any FBR office of concern:*** Complaints can be posted to FBR offices of concern as letters or written messages and addressed to Environmental and Social Focal Person.

368. The complaint can also be filed by the representative of affected person, given that they provide credible documentation and written consent by the people or group whom they represent. All complaints, however made, will be received by the EMS based in the PMU office in Islamabad. EMS will consolidate all complaints into a database on a daily basis, separated by location as well as subject. All complaints registered will reach the following:

- Project Director, PRRP
- Environmental Management Specialist (EMS)
- Social Management Specialist (SMS)

369. The grievance application would include the name of the claimant/representative, contact details of the individual making the complaint (i.e., email, phone, address), and the description of the potential harm. The EMS being the repository of all complaints will forward the complaint to the relevant Solution Tier. The solution tiers are described in sections below.

8.4 GRM Procedure

370. Any grievance in written, verbal or digital form shall be recorded by the receiving office (PMU or regional FBR offices) in a Complaint Register (CR) which will be maintained in the form of a database. A serial number will be assigned to it together with the date of receipt. The database will include details of actions taken to resolve the issue, and dates on which resolution was effected. The database will be centrally maintained at the PMU in Islamabad.

371. All registered grievances/complaints will be acknowledged through a text message or phone call. If no telephone number is supplied by the complainant, he or she will be asked through a letter to check back with the PMU. This acknowledgement will be issued within one day of receipt of the grievance/complaint. The acknowledgement shall contain the name and designation of the officer who will deal with the grievance; information that necessary action will be taken within the specified working days from the date of receipt of the grievance by the officer concerned; name, address, email address and phone number of the authority which the complainant could approach if the matter is not redressed within the specified timeframe or if s/he is not satisfied with the action taken.

372. Grievances will be investigated and resolved within the timeframe specified. If resolution demands longer than the specified timeframe, the complainant will be informed. Grievances which require cooperation of a number of departments, or which are otherwise complicated, will be referred to the Grievance Redress Committee (GRC) who will specify how resolution is to take place.

373. The staff will provide monthly updates to the claimant regarding the status and current actions being taken to resolve the grievance. If the proposed response is rejected by the stakeholders/beneficiaries then further assessment will take place unless a mutual agreement is reached between the two parties. A dialogue will be facilitated to ensure that the views of the complainants are discerned.

374. If the grievance redress mechanism fails to satisfy the aggrieved affected person at all levels, s/he can submit the case to the appropriate court of law. In that case the GRM staff will document the entire process of grievance redressal including all the relevant steps taken, communication with the complainant, and the decision made by the GRM

team to refer the AP to alternative recourse.

375. A GRM report will be submitted semi-annually detailing the work of the GRM, enumerating the number and nature of the grievances received in the past six months, referrals made, and status of ongoing implementation of the grievances being addressed.

8.5 GRM Solution Tiers

376. A multi-tier GRM has been proposed for the PRRP which is described below.

377. **Tier 1 (Regional Office level):** When a grievance arises, the EMS may directly advise the relevant FBR Field Office or Responsible Party to resolve the issue in an appropriate manner within the given timeframe of 15 days. If the issue is successfully resolved, no further follow-up is required. ESFP in the concerned office will keep track of the proceedings.

378. **Tier 2 (PMU Level GRC):** If no solution can be found at Tier 1, the EMS will convey concern/grievance to the GRC at the PMU level. The GRC will comprise of:

- Environmental and Social Focal Person of the regional/ local FBR office concerned,
- Project Director, PRRP
- Environmental Management Specialist,

379. All the members will be duly notified. For each complaint, the GRC will investigate and prepare a fact-finding report to assess its eligibility, and identify an appropriate solution. The GRC will, as appropriate, instruct the responsible entity to take corrective actions. The complaint will be redressed/appropriately responded within 15 days. The GRC will review the responsible entity's response and undertake additional monitoring as needed.

380. **Tier 3:** If the PAPs are still not satisfied with the decision, then the complainant(s) may contact and register their complaint with the Court of law.

8.6 Grievance Closure

381. The complaint shall be considered as disposed-off and closed when:

- The designated officer/authority has acceded to the request of the complainant fully;
- Where the complainant has indicated acceptance of the response in writing;
- Where the complainant has not responded to the concerned officer within one month of being intimated about the final decision of the grievance officer on his grievance/complaint;
- Where the complainant fails to attend the proceedings of the concerned officer at relevant office within the stipulated period of the disposal of the complaint; and
- Where the complainant withdraws his/her complaint.

Figure 5: Grievance Redress Mechanism

157
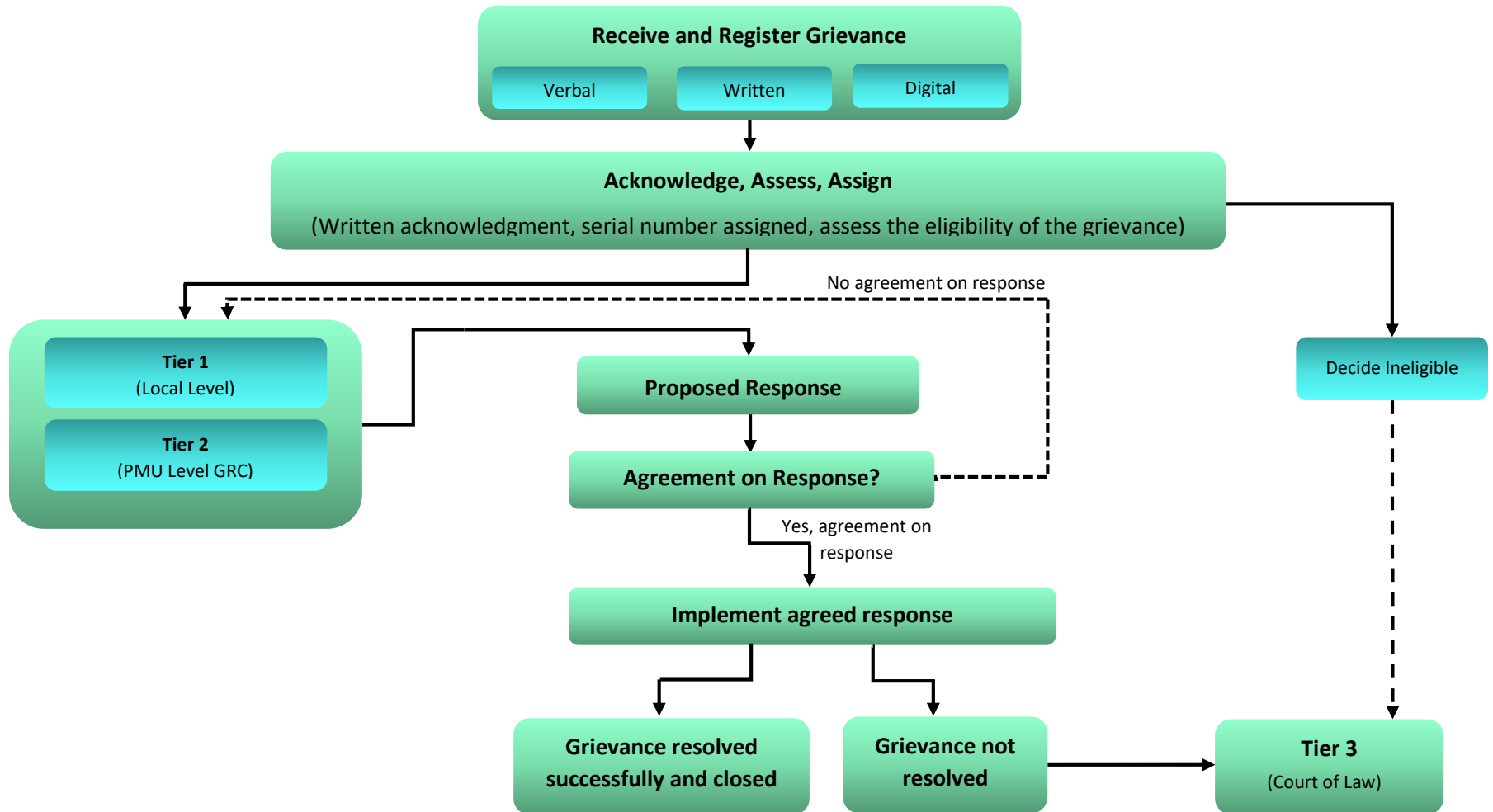
8.7 Disclosure

382. This ESMP will be disclosed on the websites of FBR, and World Bank[58]. Hard copies of this ESMP will also be shared with the project stakeholders, contractors, etc. and copies will be placed in the Project Management Unit as well as in concerned FBR offices for public access. The purpose will be to inform the public about the project activities, negative environmental and social impacts expected from the project and proposed mitigation measures that PRRP will implement to avoid and reduce environmental and social impacts.

383. The PMU, Social Management Specialist and Environmental Management Specialist will keep the stakeholders informed about the environmental and social impacts and facilitate in addressing grievance(s). The ESMP study team has made an endeavor to hold consultative and meaningful sessions with these stakeholders to evince their views on the proposed Project, *inter-alia,* their opinions, suggestions, understanding various issues and concerns.
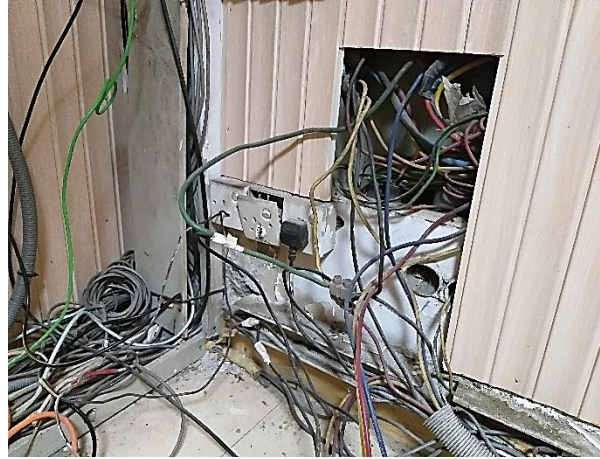
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[58] https://projects.worldbank.org/en/projects-operations/document-detail/P165982?type=projects

ANNEXURES

Annex 1: Pictures from Stakeholder Consultations & Site Assessment Visits

1. Meeting with Additional Commissioner, Regional Tax Office, Peshawar

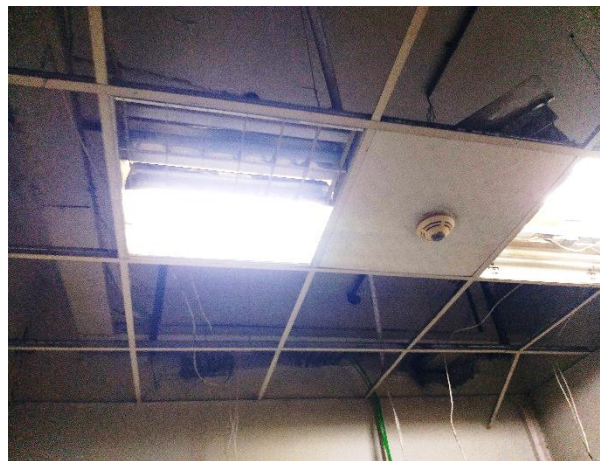2. Condition of wiring in RTO, Peshawar

3. Open storage of waste IT equipment in RTO, Peshawar

4. Loose wiring in MCC office, Peshawar

5. E-waste storage in server room, MCC office, Peshawar

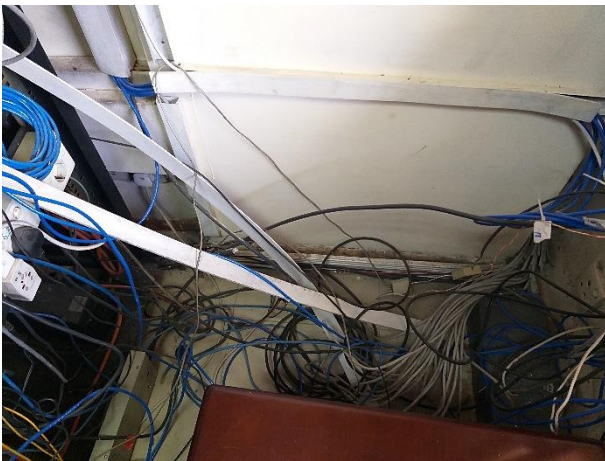6. Damaged rooftop in server room, RTO, Multan

7. Inadequate storage of E-waste in open corridor, RTO, Multan

8. Storage of all types of wastes in server room, MCC office, Multan

9. Status of wiring in RTO, Abbottabad

10. Storage of E-waste with general waste in RTO, Abbottabad

11. E-waste storage in private scrapyard at Abbottabad

12. E-waste storage in private scrapyard at Islamabad

13. View of proposed site for scanner at Karachi port

14. Another view of site for scanner at Karachi port
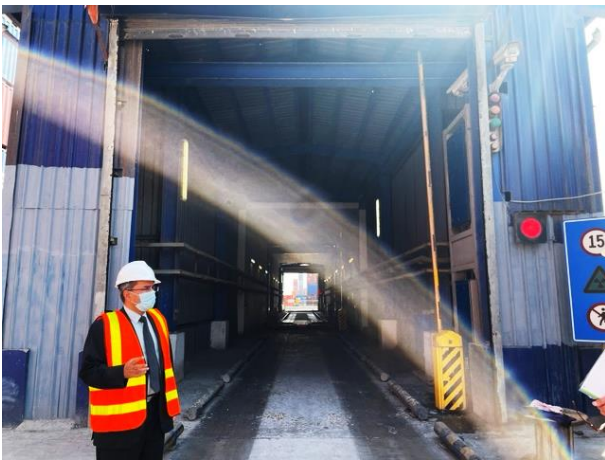
15. Existing scanner in use at Karachi port

16. View of sea port at Karachi

17. E-waste stored at Karachi port for disposal

18. Infrastructure/space for installation of IT equipment at Karachi port

Annex 2

GENERIC ELECTRONIC WASTE MANAGEMENT PLAN

PAKISTAN RAISES REVENUE PROJECT

FEDERAL BOARD OF REVENUE
GOVERNMENT OF PAKISTAN

ELECTRONIC WASTE MANAGEMENT PLAN

Objective and Scope of E-waste Management Plan

The objective of this e-waste management plan is to ensure safe dismantling and careful handling of e-waste and ensure its environmentally friendly disposal through recycling and other disposal methods. The scope of this e-waste management plan is limited to the e-waste management for the e-waste generated as a result of PRRP at target offices of FBR. The plan will guide FBR in developing e-waste management policy for future management and disposal of e-waste.

Guiding Principles

The E-waste Management Plan is based on the guiding principle which reckons "E-waste is a valuable resource".

End-of-life electrical and electronic equipment, when collected in sufficient volume and brought into a material recovery industry, are a useful source of copper, tin and steel, gold, silver and palladium, among others. Cathode ray tube (CRT) glass recovery is also possible and recycling of engineered plastics from electrical and electronic equipment is also technically feasible, especially when plastics are carefully separated by type.

The EWMP is based on the principle of World Bank's ESF Mitigation Hierarchy that PRRP should take into account for the proper management of e-waste in order to minimize the generation of waste throughout its life cycle by employing innovative and efficient processes and technologies. Reuse is an alternative that should include the implementation of a proper collection and refurbishment process. Reusing products has its limitations; it can only temporarily extend the life of the equipment. Nevertheless, reusing provides time and space for more effective handling and disposal opportunities. It also helps countries like Pakistan progress towards developing legislations and acquiring technology for environmentally safe recycling and disposal facilities.

Generic E-waste Mitigation and Monitoring Plan Template

Name of Sub-project Office: _____

Location of Sub-project Office: _____

*Name of Environment and Social Focal Person:*_____ _____

A. Description of targeted Sub-project office:

□ Data Centers   □ Regional Office

B. Please annex the list of ICT equipment (type, number and specifications) to be procured (will be annexed with the EWMP)
C. Onsite Storage:
Approximate time for e-waste being temporarily stored before being auctioned/disposed-off on-site or transported off-site: _____hrs
Briefly describe the onsite storage area facility to be used for storing e-waste (annex pictures):

D. Amount of dismantled ICT equipment to be reused on-site (will be annexed with the EWMP using template provided in Annex 2A)

E. Briefly describe the additional facilities required for e-waste management onsite:

□ E-waste Carriage Container   □ E-waste Storage Container

□ Personal Protective Equipment

Aspects	Implementation Plan			Monitoring Plan[59]		
	Proposed Mitigation Measures	**Site Specific Mitigation Measures**	**Responsibility**	**Monitoring parameter(s)**	**Frequency**	**Responsibility**
Design and Procurement Phase						
Planning for operational phase e-waste issues	• Technical specifications in bids/contracts to identify recyclable equipment or components/parts of equipment. • Contract agreement to contain a commitment from bidder to comply with the Environmental requirements. • Technical specifications in bids/contracts should provide details about how they should be safely disposed at the end of life. • FBR will ensure that auction of IT equipment also conforms to the environmental policies as regards management of e-waste e.g., certified e-waste recyclers with proper facilities is considered.		Procurement Specialist and EMS	Bids evaluation criteria	Once before every procurement advertisement	EMS
Capacity building	A training plan has been developed in the main ESMP document. EMS to develop training materials.		EMS	Training program	Once before issuance of first	EMS

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[59] **Reporting:** ESFP will be responsible for implementation of EWMMP at respective office. ESFP will use Annexures 2 "A to B" for recording the progress of e-waste management. ESFP will use template at Annex 2C for monitoring and reporting the progress on EWMMP. Annex 2C will be used on weekly basis during design, dismantling and operational phases when e-waste will be generated. ESFP will keep record of all templates developed and will share a consolidated monthly report on same template to ESM Specialist.

Aspects	Implementation Plan			Monitoring Plan[59]		
	Proposed Mitigation Measures	Site Specific Mitigation Measures	Responsibility	Monitoring parameter(s)	Frequency	Responsibility
					procurement advertisement	
Dismantling Phase						
Occupational health and safety	• A supervisor should be present on site throughout the operations. Supervisor should be technical person well aware of IT systems • Allow only authorized and relevant personnel to perform dismantling tasks where electricity and hazardous substances are involved. • All workers to use PPEs such as gloves, masks and boots. • Inspect power lines for any breach and if found damaged, repair immediately. • Keep CO_2 fire extinguishers ready near working sites • Disconnect networking cables • Shut down the systems properly one by one • Disconnect power cables • Shut-off installed power lines from main sources • Check the power sockets and paste stickers/signs on damaged sockets mentioning "out of order" status. • Before dismantling any electronic device, seal up any broken parts in separate containers so that hazardous chemicals don't leak. • Wear latex gloves and a mask if handling something broken. • Dismantle the networking systems one by one.		ESFP	Use of PPEs Availability of fire extinguishers	Weekly till completion of dismantling phase at respective site	ESFP EMS

Aspects	Implementation Plan			Monitoring Plan[59]		
	Proposed Mitigation Measures	Site Specific Mitigation Measures	Responsibility	Monitoring parameter(s)	Frequency	Responsibility
	• Dismantle electronic equipment including computers, printers, etc. one by one. • Make inventories using the template provided as annex-2A. • Forward inventories/records regularly to concerned authorities to include in the e-waste database to support the development of pertinent regulations. • Identify temporary storage areas. • Transport to temporary storage areas immediately after dismantling. • Store within marked areas leaving enough space for movement.					
General guidelines	• Identify usable equipment (computers, laptops, networking equipment). Develop inventory using the template at Annex-2A. • Identify repairable equipment that can be repaired and used to extend its useful life thereby reducing the e-waste for final disposal • Tag each equipment as usable, repairable and unusable with unique identifier code. This will help in inventorying of equipment for audit purposes. • Back up all data on new memory devices • Clear memory from old equipment with experts' support • Confirm memory clearance and non-recoverable status of data on memory devices		ESFP Admin Staff	Inventories	Monthly	ESFP EMS

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Aspects	Implementation Plan			Monitoring Plan[59]		
	Proposed Mitigation Measures	Site Specific Mitigation Measures	Responsibility	Monitoring parameter(s)	Frequency	Responsibility
Usable equipment	• Assess future usability of usable equipment • Identify general users within the FBR offices • Handover usable equipment to identified office/users • Update inventories accordingly		ESFP Admin Staff	Inventory	Monthly	ESFP EMS
Repairable equipment	• Apply necessary repairs through replacement of components or repairing of parts such as circuit boards, connectors, etc. • Include the repaired equipment in usable equipment inventory and handover to users accordingly		ESFP Admin Staff	Inventory	Monthly	ESFP EMS
E-waste	• E-waste collected in storage areas will be handed over to recyclers through auction within 3 months. • Environmental Focal Person (ESFP) to orient scrap dealers for creating awareness on the need to safely dispose-off E-wastes. • ESFP to develop inventory of E-waste and handover inventory to successful and licensed e-waste recycler/scrap dealer along with the scrap containing E-waste being handed over by the admin staff. • Handover E-waste to licensed e-waste dealer/recycler using template at Annex-2B, selected through official procedures. • The licensed e-waste dealer/recycler after receiving the wastes has to provide certificate		ESFP Admin Staff	Inventory Certificates	Monthly/ quarterly	ESFP Scrap dealer EMS

Aspects	Implementation Plan			Monitoring Plan[59]		
	Proposed Mitigation Measures	Site Specific Mitigation Measures	Responsibility	Monitoring parameter(s)	Frequency	Responsibility
	mentioning "recycling will be done to manage the E-waste and that the leftover E-waste after manual removal of usable parts at his scrapyard will be recycled in environment friendly manner". The licensed e-waste dealer/recycler will also affirm that E-waste will not be burnt or treated for acid leaching to recover metals. • Take signature of licensed e-waste dealer/recycler on this certificate attached as Annex-2B. • ESFP to obtain receipts of E-waste being handed over to dealer/recycler. • ESFP and Admin staff to update inventories accordingly. • Third party monitor to confirm safe disposal by dealer/recycler through monitoring.					
Awareness creation	• Creating awareness among e-waste dealer/recycler and their workers about hazards of e-waste as well as need for eco-friendly recycling to conserve natural resources and sustainable use of available resources.		ESFP	Certification as per Annex 2B	Before handing over E-waste and quarterly	ESFP EMS
Operation Phase						
E-waste management	• Follow mitigation measures mentioned against E-waste under dismantling phase above.		ESFP Admin Staff	As per measures above at relevant space	As stated above at relevant space	ESFP
Awareness	• Raising awareness among users about the prohibition against disposing of e-waste with general		ESFP	Printing material displayed	Quarterly	ESFP

Aspects	Implementation Plan			Monitoring Plan[59]		
	Proposed Mitigation Measures	Site Specific Mitigation Measures	Responsibility	Monitoring parameter(s)	Frequency	Responsibility
	waste. Use posters at prominent places.					

Cost Estimate for Implementation of E-waste Management Plan: _____

Signature of Responsible Person: _____
Dated: _____

Inventory of Dismantled ICT Equipment and E-waste

Date:
Office:
Location:

Type and Quantity of ICT Equipment Dismantled

No.	Type	Quantity	Usable	E-waste	Storage Status
Total					

Inventory developed by _____   Admin Wing _____

Note: Below certification to be signed at the time of handing over of E-waste to dealer concerned. Certification copy to be submitted to PRRP PMU through ESFP.

Certified that above E-waste has been handed over to scrap dealer/recycler on _____ along with briefing on Environmentally Safe Disposal of E-waste by the dealer.

Admin Wing _____

E-waste (ICT equipment) Handed Over to Scrap Dealer/Recycler

Date: _____   Office: _____

Type and Quantity of E-waste/ICT Equipment

No.	Type	Quantity	Approx. Weight
1	Personal computers (CPU)		
2	Laptop		
3	CRT monitor		
4	Flat screen monitor		
5	Printers		
6	Photocopiers		
7	Servers		
8	Keyboards and mouse		
9	Ink toners		
10	Network switches/routers		
11	Networking cables, electrical wires		
12	Batteries		
13	Others		

The scrap/e-waste dealer hereby declares that recycling will be done to manage the E-waste at his facility and that the final remaining E-waste after manual removal of usable parts at his scrapyard will be disposed-off in environment friendly manner. The dealer further assures that burning or acid leaching will never be applied on e-waste being handed over to him.

Admin Wing _____   Dealer _____

Name and CNIC: _____

Template for EWMMP Monitoring Checklist/Report

Project Component	Infrastructure Project Financing Component – Pakistan Raises Revenue Project		
Sub project office		Project Phase	**Design/Dismantling/etc.**
Report No.		Reporting Date	
Monitoring Date		Monitoring Officer	(Name and designation)

Status of compliance to EWMMP

Impacts	Mitigation Measure	Status of Compliance				Remarks
		Full	**Partial**	**No**	**NA**	
Status of EWMMP Compliance – Procurement and Design Phase						
Planning for operational phase e-waste issues	Technical specifications in bids/contracts to identify recyclable equipment or components/parts of equipment	☐	☐	☐	☐	
	Contract agreement to contain a commitment from bidder to comply with the Environmental requirements	☐	☐	☐	☐	
	Technical specifications in bids/contracts should provide details about how they should be safely disposed at the end of life	☐	☐	☐	☐	
	FBR will ensure that auction of IT equipment also conforms to the environmental policies as regards management of e-waste e.g., certified e-waste recyclers with proper facilities is considered	☐	☐	☐	☐	
Capacity building	A training plan has been developed in the main ESMP document. EMS to develop training materials accordingly.	☐	☐	☐	☐	
Status of EWMMP Compliance – Dismantling Phase						
Occupational health and safety	A supervisor should be present on site throughout the operations. Supervisor should be technical person well aware of IT systems	☐	☐	☐	☐	
	Allow only authorized and relevant personnel to perform dismantling tasks where	☐	☐	☐	☐	

Impacts	Mitigation Measure	Status of Compliance				Remarks
		Full	Partial	No	NA	
	electricity and hazardous substances are involved					
	All workers to use PPEs such as gloves, masks and boots	☐	☐	☐	☐	
	Inspect power lines for any breach and if found damaged, repair immediately	☐	☐	☐	☐	
	Keep CO_2 fire extinguishers ready near working sites	☐	☐	☐	☐	
	Disconnect networking cables	☐	☐	☐	☐	
	Shut down the systems properly one by one	☐	☐	☐	☐	
	Disconnect power cables	☐	☐	☐	☐	
	Shut-off installed power lines from main sources	☐	☐	☐	☐	
	Check the power sockets and paste stickers/signs on damaged sockets mentioning "out of order" status	☐	☐	☐	☐	
	Before dismantling any electronic device, seal up any broken parts in separate containers so that hazardous chemicals don't leak.	☐	☐	☐	☐	
	Wear latex gloves and a mask if handling something broken	☐	☐	☐	☐	
	Dismantle the networking systems one by one	☐	☐	☐	☐	
	Dismantle electronic equipment including computers, printers, etc. one by one	☐	☐	☐	☐	
	Make inventories using the template provided as annex-2A	☐	☐	☐	☐	

Impacts	Mitigation Measure	Status of Compliance				Remarks
		Full	Partial	No	NA	
	Forward inventories/records regularly to concerned authorities to include in the e-waste database to support the development of pertinent regulations	☐	☐	☐	☐	
	Identify temporary storage areas.	☐	☐	☐	☐	
	Transport to temporary storage areas immediately after dismantling	☐	☐	☐	☐	
	Store within marked areas leaving enough space for movement	☐	☐	☐	☐	
General guidelines	Identify usable equipment (computers, laptops, networking equipment). Develop inventory using the template at Annex-2A	☐	☐	☐	☐	
	Identify repairable equipment that can be repaired and used to extend its useful life thereby reducing the e-waste for final disposal	☐	☐	☐	☐	
	Tag each equipment as usable, repairable and unusable with unique identifier code. This will help in inventorying of equipment for audit purposes	☐	☐	☐	☐	
	Back up all data on new memory devices	☐	☐	☐	☐	
	Clear memory from old equipment with experts' support	☐	☐	☐	☐	
	Confirm memory clearance and non-recoverable status of data on memory devices	☐	☐	☐	☐	
Usable equipment	Assess future usability of usable equipment	☐	☐	☐	☐	
	Identify general users within the FBR offices	☐	☐	☐	☐	
	Handover usable equipment to identified office/users	☐	☐	☐	☐	

Impacts	Mitigation Measure	Status of Compliance				Remarks
		Full	Partial	No	NA	
	Update inventories accordingly	☐	☐	☐	☐	
Repairable equipment	Apply necessary repairs through replacement of components or repairing of parts such as circuit boards, connectors, etc.	☐	☐	☐	☐	
	Include the repaired equipment in usable equipment inventory and handover to users accordingly	☐	☐	☐	☐	
E-waste	E-waste collected in storage areas will be handed over to recyclers through auction within 3 months.	☐	☐	☐	☐	
	Environmental and Social Focal Person (ESFP) to orient scrap dealers for creating awareness on the need to safely dispose-off E-wastes	☐	☐	☐	☐	
	ESFP to develop inventory of E-waste and handover inventory to successful and licensed e-waste recycler/scrap dealer along with the scrap containing E-waste being handed over by the admin staff	☐	☐	☐	☐	
	Handover E-waste to licensed e-waste dealer/recycler using template at Annex-2B, selected through official procedures	☐	☐	☐	☐	
	The licensed e-waste dealer/recycler after receiving the wastes has to provide certificate mentioning "recycling will be done to manage the E-waste and that the leftover E-waste after manual removal of usable parts at his scrapyard will be recycled in environment friendly manner". The licensed e-waste dealer/recycler will also affirm that E-waste will not be burnt or treated for acid leaching to recover metals	☐	☐	☐	☐	
	Take signature of licensed e-waste dealer/recycler on this certificate attached as Annex-2B	☐	☐	☐	☐	

Impacts	Mitigation Measure	Status of Compliance				Remarks
		Full	Partial	No	NA	
	ESFP to obtain receipts of E-waste being handed over to dealer/recycler	☐	☐	☐	☐	
	ESFP and Admin staff to update inventories accordingly	☐	☐	☐	☐	
	Third party monitor to confirm safe disposal by dealer/recycler through monitoring.	☐	☐	☐	☐	
Awareness creation	Creating awareness among e-waste dealer/recycler and their workers about hazards of e-waste as well as need for eco-friendly recycling to conserve natural resources and sustainable use of available resources	☐	☐	☐	☐	
Status of EWMMP Compliance – Operation Phase						
E-waste management	Follow mitigation measures mentioned against E-waste under dismantling phase above.	☐	☐	☐	☐	
Awareness	Raising awareness among users about the prohibition against disposing e-waste with general waste. Use posters at prominent places.	☐	☐	☐	☐	

Other Observations during Monitoring

Observations	Recommendations
1.	1.

PHOTOGRAPHS FROM EWMMP MONITORING

Must be in landscape mode.
Minimum 6 pictures.

ANNEXURES (IF ANY)
On separate page

1	Date and time of the Incident	
2	Location of the incident	
3	Contractor	
4	Category of the Incident	
5	Nature of the Incident (i.e., equipment damage; falls; fire; dust; etc.)	
6	Affected environmental media/receptor (i.e., Air, Ground, Fauna, Flora, Human (on-site, off-site), Surface Water, Other)	
7	Brief description of the incident (Include exactly what happened, if known, who incident was reported by and reported, weather conditions at time of incident if known (temp, precipitation)	
8	Immediate Action Taken (Describe the immediate response to the incident and action taken, including personnel involved and equipment used)	
9	Root Causes (Detail outcome of the system analysis to identify and control underlying root causes of all incidents in order to prevent their recurrence. This should be carried out by brainstorming exercise and five whys analysis.)	
10	Proposed Recommendations/Further Actions Required (Detail any further action required to minimize the likelihood of re-occurrence. As the same activities are practiced elsewhere in the Project, such recommendations would be communicated with all Contractors and implemented in relevant sites)	
11	Persons Involved (if applicable)	
12	Incident Report Completed by (Name, Role)	
14	Comments of the Supervisor (Sign off and date)	
15	Comments of the Owner (Sign off and date)	
16	Photos and additional information (Add photos or any additional information)	

Annex 4
Measures to Prevent Entry of Rodents into Offices

Rats and mice are well known to be a risk to businesses across the globe. They carry diseases and parasites, cause damage from gnawing building fixtures and fittings such as electrical wiring, network cabling and contaminate food and surfaces with dirt, droppings and urine. Air is contaminated with the hundreds of hairs that they shed each day as well as dried droppings and urine in dust when it is disturbed.

It is vital for businesses to have a management/control plan in place to prevent rodent access to buildings and deal with infestations rapidly and effectively. Indications of rodent infestation include:

- **Characteristic sounds:** squeaking and sounds of little feet scraping on ceilings or under flooring
- **Sightings:** sightings of live or dead animals are an obvious indication
- **Nests:** they are often found in lofts and other hidden spaces
- **Smell:** rats and mice produce a characteristic smell. They also urinate frequently, leaving an ammonia smell
- **Droppings:** rats can produce around 40 droppings per night and mice around 80
- **Footprints:** rats and mice leave characteristic footprints in general dust or special powders and gel laid down to detect them
- **Smear marks along runways**: rats and mice leave dirty, greasy smudges along their runs
- **Gnaw marks**: rodents can gnaw through many materials to enlarge holes and wear down their constantly growing teeth

Roof and ceiling spaces are common areas where rodents and other pests find safe places to shelter or use as a route into a building. These spaces are often difficult to access for pest control and cleaning, and require particular care to prevent falls from height.

There are many ways in which a mouse, or rat, can get into the office.

1. **Mouse Highways** – One way in which mice can navigate their way into workplace is through connections between different buildings such as water pipes, cables and other underground methods. This allows rats and mice to quickly move between different buildings with ease. With more and more buildings being built every day, each sharing the same pipes and cables, rats and mice find it even easier to explore new territories in search of food and a place to live, and this can be any office. Once inside, mice can find their way around using 'mouse highways' through cable risers, fall ceilings, floors, wall partitions and lift shafts in search of food.
2. **Food Pallets** – Another way mice navigate their way into the offices is through food pallets, especially if office is attached to a warehouse. A mouse will no doubt explore the environment of the new area they have traveled to. The requirement of mice to survive is shelter, minimal food and water.

Impacts of rodent infestation

Mice seem harmless and innocent, they can be quite a menace.

1. **Spread Disease** – Mice carry many diseases and spread them around the office.
2. **Dropping** – Rodents such as rats and mice can spread diseases through their droppings. They leave a mess anywhere and everywhere, including keyboard and phone.
3. **Urine** – Mice also urinate everywhere, especially in a new place. It lets them keep track of the places they have been to and is a way of leaving messages behind for others. When mice urinate in certain areas multiple times urine pillars are formed. This is where the urine merges with the grease from their fur and creates small piles which look a lot like stalagmites. On top of this, mice and rat urine are also one of the main instigators of the spread of rodent borne diseases. These harmful pathogens could be picked up on human hands or sometimes mixed with dust, which, if disturbed, can be inhaled.
4. **Chew Cables** – Mice are very neophiliac (like new things) creatures, it is in their nature to explore – especially with their teeth. They gnaw at items to test for food, gain passage, or just out of curiosity. Being in an office environment this curiosity can lead to rats and mice chewing on the cables in the office. This can be anywhere from keyboard and phone wires to internet and server cables.
5. **Start Fires** – One of the potential downfalls of rodents gnawing at the wires in office is the potential to start fires. By chewing on the wires, the mice leave the rubber casing open, which can lead to short circuiting and catching alight.
6. **Lose Work** – Other than the fire hazard risk due to presence of mice in the office, there is also a risk of losing data and important work files due to computer failure.

Mitigation Measures

The best way to keep mice/rodents out of the office is through a handful of mouse prevention techniques that can be carried out without the help of a professional.

1. **Clean Up** – Mice are scavengers, although they don't need much food to survive, they won't pass up a free meal. That's why dirty plates attract mouse. Free food with not that much effort. A simple way to stop mice from coming into the office is to make sure all plates, mugs, and cups are clean at the end of the day.

2. **Empty Garbage Cans** – Garbage cans are also a good place for mice and rats to find food. They aren't fussy eaters (mostly) and will eat out of a garbage can. Garbage cans should be to emptied at the end of each day. Administration of the office complex should get the outside dumpsters placed a good distance away from the building to stop mice from finding their way inside.

3. **Cleaning Rotation**: Some infestations can be prevented when cleaning rotations are changed to ensure offices are cleaned thoroughly at night and not left to the morning.

4. **Prohibition of eating at the Desk** – It is very common to see this happening now a days, but it attracts mice into the building. Eating at desk is an attraction to mice. Any crumbs or leftover food left at the desk will attract a hungry mouse. If people decide to eat at desk, clean up any crumbs left behind as well as discard used packaging and unwanted food.

5. **Keep Food in Plastic Containers** – People usually keep favorite snacks hidden away in the desk, but these are highly attractive places for rodents. A great way to keep snacks nearby is to place them in air-tight plastic containers. Not only do they keep the scent hidden from mice, but they also keep the food fresh.

6. **Baiting** – An effective way to control rodents in offices is using bait. Rodent baiting consists of strategically placing bait in boxes around the building. The mouse enters the box in search for food and has a nibble on the bait.

7. **Professional Mouse Control** – If necessary, prevention procedures are taken but still some unwanted office rodents are found, the next step would be to contact a pest control professional.

8. **Seal gaps and holes around utility cables, outdoor vents or pipe work with steel wool or silicone-based caulk** – Rats often enter through open doorways, but they can also get in through small holes in foundation or walls. Inspect office building and rooms at least once in a quarter and seal the holes if there is potential risk of rodent intrusion.

9. **Adopt neutered cats in the office** and do not feed them to keep them hungry and active to hunt rodents.

Annex 5

Template for
Quarterly Environmental and Social Monitoring Report of Pakistan Raises Revenue Project

Title Page

Table of contents

List of Annexures
List of Tables
Abbreviations

Executive Summary

Contents in the main body of quarterly report

1. Introduction
   a. Objective of report
   b. Project description and current activities
   c. Introduction to PRRP
   d. Status of project activities during current reporting period
   e. Status of project contracts
   f. Locations of sub-project sites
2. Environmental and Social Activities
   a. Overview of Monitoring Conducted during Current Period.
   b. Description of what has been done.
   c. Identification of what has been missed or not implemented.
   d. Discussion on non-compliances.
   e. Any un-anticipated environmental and social impacts.
   f. Provide Correction Action Plan for missed activities.
   g. Tracking of previous corrective action plan (if any).
   h. Waste management activities including e-waste.
   i. Discussion on Indoor Air Quality.
   j. Worker's health and safety.
   k. Status of rodent control measures.
   l. Community health and safety.
   m. Grievance redress mechanism – record.
   n. Good Practices.
   o. Opportunities for improvement.

Annexures

Pictures from environmental and social activities

Other supporting documents, reports, certificates, letters, etc.

Annex 6: Record of Stakeholder Consultations

Stakeholder consulted	Discussion Point(s)	Date of meeting and Location
FBR House (Headquarters), Data Center, Islamabad	Capacity of staff to dismantle IT equipment	19 April 2021, Islamabad
Regional Tax Office, Peshawar	Status of existing IT equipment, current E-waste management practices, identification of Environmental and Social Impacts and Mitigation Measures, Training Needs, etc.	20 April 2021 at Office of RTO, Peshawar
Model Collectorate of Customs (MCC), Peshawar	Status of existing IT equipment, current E-waste management practices, identification of Environmental and Social Impacts and Mitigation Measures, Training Needs, etc.	20 April 2021 at Office of MCC, Peshawar
Regional Tax Office, Multan	Status of existing IT equipment, current E-waste management practices, identification of Environmental and Social Impacts and Mitigation Measures, Training Needs, etc.	22 April 2021 at Office of RTO, Multan
Model Collectorate of Customs (MCC), Multan	Status of existing IT equipment, current E-waste management practices, identification of Environmental and Social Impacts and Mitigation Measures, Training Needs, etc.	22 April 2021 at Office of MCC, Multan
Regional Tax Office, Abbottabad	Status of existing IT equipment, current E-waste management practices, identification of Environmental and Social Impacts and Mitigation Measures, Training Needs, etc.	23 April 2021 at Office of RTO, Abbottabad
Tax Consultants/Lawyers, Lawyers Chambers, F-8, Islamabad.	Social impacts of PRRP with particular reference to loss of jobs/business/incomes	29 April 2021 at F-8 Markaz, Islamabad
Individual tax payers	Impacts of PRRP on individuals	13 to 15 Sep 2021
Small businesses	Impacts of PRRP on taxation matters of small businesses	13 to 15 Sep 2021
Pak-EPA, H-8, Islamabad	Rules and Regulations of Government of Pakistan on E-waste management.	21 May 2021 at Pak-EPA, Sector H-8, Islamabad
Provincial EPAs	Rules and Regulations of Provincial Government on E-waste management.	13 to 15 Sep 2021 via phone calls
Scrap Dealer, Abbottabad	E-waste collection, recycling and disposal mechanism	23 April 2021 at Scrapyard, Bilal Town, Kakul Road, Abbottabad
Kabaarh House, F-12, Islamabad	E-waste collection, recycling and disposal mechanism	27 April 2021 at Scrapyard, Bilal Town, Kakul Road, Abbottabad
Scrap Store, Misri Shah, Lahore	E-waste collection, recycling and disposal mechanism	27 April 2021 via phone call
Al Meezan Scrap Traders, Pakistan Mint, Baghbanpura, Lahore, Pakistan	E-waste collection, recycling and disposal mechanism	27 April 2021 via phone call
Scrap Zone, Sher Shah, Karachi	E-waste collection, recycling and disposal mechanism	28 April 2021 via phone call
Scrap Wala, Sher Shah, Karachi	E-waste collection, recycling and disposal mechanism	28 April 2021 via phone call

E-waste Recyclers/Disposal Workers, Lyari, Karachi	E-waste recycling and disposal mechanism	3 May 2021 via phone call
Port Qasim Authorities	Installation of x-ray-based scanners, regulatory requirements, environmental and health impacts of scanners, coordination with Pakistan Nuclear Regulatory Authority	1 Dec 2021 via phone call
Pakistan Customs Wing, FBR Head Office, Islamabad.	Coordination between Pakistan Customs and Pakistan Nuclear regulatory Authority on licensing and use of x-ray-based scanners, environmental and health impacts of scanners, capacity of Pakistan Customs to implement ESMMP of PRRP.	1 Dec 2021 in the office of Additional Director, Pakistan Single Window Program, Pakistan Customs, FBR Head Office, Islamabad.
Pakistan Nuclear Regulatory Authority, Headquarters in Islamabad	PNRA Regulations on licensing of x-ray-based scanners, license for acquiring scanner, license of use of scanner, environmental monitoring requirements, guidelines for safety of workers and people from radiation, coordination with PNRA for development of SOPs/guidelines.	2 Dec 2021 at PNRA Head Office, Islamabad
Jinnah International Airport, Karachi	Installation of x-ray-based scanners, experience in use of scanners, existing SOPs on safe use of scanners, environmental and health impacts of scanners, coordination with Pakistan Nuclear Regulatory Authority	8 Dec 2021 via phone call
South Asia Port Terminals (SAPT)	Environmental impacts of scanners, role of PNRA, guidelines for operation of scanners, disturbance to routine operations.	8 Dec 2021 via phone call

Annex 7: STAKEHOLDER CONSULTATIONS

Consultation/Visit/Meeting Questionnaire

1	Stakeholder/Office	
2	Location/Address	
3	Date of visit/meeting	
4	Ref No.	
5	Participants	
6	Contact details	
Discussion points		
7	Orientation of staff at FBR offices on environmental requirements of PRRP	
8	Review of capacity of staff to manage dismantling activities	
9	Capacity of staff to handle E-waste	
10	Previous experience of using x-ray-based scanners.	
11	Availability of SOPs guidelines for use of scanners	
12	Alternative arrangements for uninterrupted routine operations	
13	Discussion for identification of environmental impacts and identification of mitigation measures for identified impacts.	
14	Identification of mitigations for social impacts including loss of jobs/income	
15	General opinion of staff and discussions on PRRP activities and their environmental and social impacts	
16	Opportunities for improvement	
17	Training needs on Environmental and Social issues	
18	Waste Management Responsibilities	
19	Current waste management practices (General wastes)	
20	Current waste management practices (Electronic wastes)	
Site(s) visit points		
11	Observation of existing equipment that needs replacement	
22	General environmental conditions in and around the site	
23	Review of waste storage areas. Current E-waste storage area.	
24	Disposal of waste and scrap – existing practices	
25	Identification of storage site for E-waste	

Note: If allowed, take few pictures for record and inclusion in the ESMP document.

Annex - 8

Team for Environmental and Social Management Plan (ESMP) of Pakistan Raises Revenue Project

No.	Name / Organization	Designation in Team
1	Project Director, FBR	Team Lead
2	Environmental and Social Management Specialist, PMU, PRRP	Environmental Expert
3	Procurement Specialist, PMU, PRRP	Technical Expert Member
4	Contract Management Specialist, PMU, PRRP	Technical Expert Member
5	Financial Management Specialist, PMU, PRRP	Technical Expert Member

Annex 9: PRRP Implementation Sites/Offices

No.	FBR Office location
1	FBR House, Islamabad
2	Large Taxpayer Unit (LTU) Islamabad
3	Model Collectorate of Customs (MCC), Islamabad
4	Directorate I&I, Islamabad
5	PRAL Headquarters, Islamabad
6	RTO, Islamabad
7	Regional Tax Office (RTO), Rawalpindi
8	RTO, Peshawar
9	RTO, Abbottabad
10	MCC, Peshawar
11	MCC, Quetta
12	Custom House, Karachi
13	RTO I, Karachi
14	RTO II, Karachi
15	RTO III, Karachi
16	DOT Old Custom House, Karachi
17	LTU, Karachi
18	LTU II Karachi
19	MCC, Hyderabad
20	RTO, Hyderabad
21	RTO, Sukkur
22	CRTO, Lahore
23	DOT IR Lahore
24	LTU, Lahore
25	RTO II, Lahore
26	MCC, Lahore
27	MCC, Multan
28	RTO, Multan
29	MCC, Faisalabad
30	RTO, Faisalabad
31	MCC, Sambrial
32	RTO, Gujranwala,
33	RTO, Sialkot
34	RTO Sargodha
35	RTO Bahawalpur
36	Port Qasim, Karachi
37	Jinnah International Airport
38	Islamabad International Airport

Annex 10

Covid-19 Standard Operating Procedures

Following Covid-19 protection guidelines besides the guidelines issued by WHO and local health authorities to be followed by the workers:

- Only asymptomatic workers/staff/visitors shall be allowed entry.
- Temperature checks of all the staff at the entry of the office buildings. Hand sanitizers will be available at the entry points.
- Individuals must maintain a minimum distance of 6 feet in common places as far as feasible.
- Use of face covers/masks at all times. They must be worn properly to cover nose and mouth. Touching the front portion of mask/face covers to be avoided.
- Practice frequent hand washing with soap even when hands are not visibly dirty. Use of alcohol-based hand sanitizers can be made wherever feasible.
- Respiratory etiquettes to be strictly followed. This involves strict practice of covering one's mouth and nose while coughing/sneezing with a tissue/handkerchief/flexed elbow and disposing off used tissues properly.
- Avoid handshaking.
- No spitting anywhere.
- Self-monitoring of health by all and reporting any illness at the earliest to the supervisor.
- Proper cleaning and frequent sanitization (at-least twice a day) of the workplace, particularly of the frequently touched surfaces must be ensured.
- Ensure regular supply of hand sanitizers, soap and running water in the washrooms.
- Number of people in the elevators shall be restricted, duly maintaining physical distancing norms.
- Proper disposal of face covers / masks / gloves left over by visitors and/or employees in covered bins, shall be ensured.
- If suspected, the person will be isolated and guided to an isolation room. Further guidance will be provided to the suspected Covid-19 person to consult health services.

Annex 11

Roles and responsibilities of PMU

Position	Responsibility
Project Director	Guidance and ensure ESMP implementation
Environmental Management Specialist	• Ensure implementation of the ESMP/environmental and social screening checklists and EWMP during various stages of PRRP implementation. • Ensure that timely and robust environmental monitoring is carried out in the field. • Ensure that the bidding documents and contracts include clauses for implementation of environmental mitigations. • Ensure that environmental trainings are planned and implemented. • Overall monitoring and reporting of environmental mitigations of ESMP and EWMP. • Coordinate with stakeholders and ensure development of awareness material on environmental aspects. • Commission annual third-party environmental validations of the project. • Prepare Environmental Progress Reports for the project.
Social Management Specialist	• Ensure implementation of the social aspects of ESMP/site specific instruments during various stages of PRRP implementation. • Ensure that timely and robust social monitoring is carried out in the field. • Ensure that the bidding documents and contracts include clauses for implementation of social mitigations. • Ensure that social trainings are planned and implemented. • Overall monitoring and reporting of social mitigations of ESMP and EWMP. • Coordinate with stakeholders and ensure development of awareness material on social aspects. • Coordinate with EMS during commissioning of annual third-party environmental and social validations of the project. • Prepare Social Progress Reports for the project.

Annex 12

Roles and Responsibilities of Environmental and Social Focal Person

- Supporting the PMU in implementation of ESMP/mitigation measures proposed in environmental and social screening checklists, EWMP, Measures to prevent entry of rodents into offices, GRM, Stakeholder Engagement Plan, ,etc. at respective office level.
- Conduct site screening as per Environmental and Social Screening Checklist (Annex 13).
- Coordinate with regulatory authorities for development of guidelines and SOPS. Such as ESFP at Pakistan Customs/Port Authorities to coordinate with PNRA for development of SOPs and Decommissioning Plan for scanners.
- Orientation and training of the PRRP implementation workers/staff/contractors on environmental and social compliance, mitigation and monitoring.
- Conduct monitoring as per ESMP in the ESMP as well as EWMP and report to the PMU.
- Develop inventories of dismantled equipment, E-waste generated and useful equipment.
- Oversee the PRRP activities such as dismantling, installation, waste disposal and operational activities with reference to ESMP and EWMP requirements.
- Provide data to Environmental Management Specialist and Social Management Specialist with reference to implementation of ESMP and EWMP.
- Carry out visits to sites of E-waste recyclers/disposal workers to ensure safe disposal of E-waste in accordance with EWMP.

Annex 13
Environmental and Social Screening Checklist
Pakistan Raises Revenue Project

1. **Sub Project Location:** _____

2. **Sub Project GPS Co-ordinates:** _____

3. **Quantity of ICT equipment to be dismantled:** _____

4. **Quantity of ICT equipment to be procured:** _____

5. **Date of screening/assessment:** _____

6. **Please provide details of any significant expected impacts ("without mitigation" case) due to the proposed sub-project activities:**

S.N.	Type of Anticipated Impacts	Yes	No	Not Known	Details/ Remarks
1.	Does the sub-project include up-gradation restoration or rehabilitation of existing physical structures?				
2.	Are there any protected areas on or around the locations which could be affected by the project?				
3.	Are there any ecologically sensitive areas on or around the locations which could be affected by the project?				
4.	Are there any areas on or around the locations which are occupied by sensitive land-use e.g., hospitals, schools, worship places, community facilities?				
5.	Will operation of the sub-project use natural resources such as water, materials or energy, especially any resources which are non-renewable or in short supply?				
6.	Will the project involve use, storage, transport, handling or production of substance or materials, which could be harmful to human health or the environment?				
7.	Will the project release dust during any of its implementation phase?				
8.	Will the project cause noise and vibration?				
9.	Will the project lead to risks of				

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S.N.	Type of Anticipated Impacts	Yes	No	Not Known	Details/ Remarks
	contamination of land or water from releases of pollutants onto the ground or into surface waters and groundwater?				
10.	Will the project interventions result in improper sanitation and solid waste disposal systems for general waste?				
11.	Is there a proper mechanism for general solid waste disposal and sanitation?				
12.	Will the project result in e-waste generation?				
13.	Is there a proper mechanism for e-waste disposal?				
14.	Is there space available for proper storage of e-waste?				
15.	Whether scrap/e-waste dealers are available locally?				
16.	Will the sub-project pose health and safety risks to workers?				
17.	Is there any risk of fire because of wiring and networking infrastructure?				
18.	Will the project have risks to community health and safety caused by (any or all of the below) i. Management and disposal of general waste. ii. Management and disposal of e-waste. iii. Spread of Covid-19 due to sub-project workers; and iv. Fire, electric shock or failure of networking systems/structures during operation.				
19.	Impact on infrastructure (roads, water supply, any other type of infrastructure)				
20.	Are there any physical cultural resources within and around the project site?				
21.	Are there any signs of intrusion by animals such as rodents (mice), insects, birds, reptiles, etc.				

S.N.	Type of Anticipated Impacts	Yes	No	Not Known	Details/ Remarks
22.	Will the project result in social impacts. If yes, explain briefly				
23.	Will the project result in gender disparity				

7. **Sub-project categorization:**

☐ **Medium Impact**   ☐ **Low Impact**

8. **Please provide an explanation to justify the Categorization above:**

Screening and categorization conducted by:
Name and designation

9. **Recommendation on the specific mitigation measures to be implemented (EMS to select from ESMP and EWMP, and/or specify other measures to be undertaken by the sub-project).**

Endorsed by:
Environmental Management Specialist, PMU, PRRP