Sindh Social Protection Authority (SSPA)

Social Protection Department, Government of Sindh

Strengthening Social Protection Delivery System in Sindh (SSPDS)

MOTHER & CHILD SUPPORT PROGRAM

E-waste Management
Standard Operating Procedures June 2024

1. **Introduction**

The Sindh Social Protection Authority (SSPA) was established through a provincial legislation on July 27, 2022. It is an independent statutory body, comprising a Policy Board and an Authority Secretariat headed by a Chief Executive Officer (CEO). Streghtening Social Protection Delivery System will be implemented by the SSPA as the lead implementing agency, in close collaboration with the healthcare system of the Government of Sindh. SSPA will also liaise with Benazir Income Support Programme, National Database and Registration Authority, and where possible existing government institutional structures will be used for implementation. SSPA will be responsible for overall project planning, coordination, and reporting. Chief Executive Officer SSPA will be the ex-officio Project Director for SSPDS, assisted by a Senior Project Manager responsible for day-to-day operations and implementation of activities assigned to the SSPA. SSPD will support required capacities in SSPA for evidence-based planning and delivery of various programs assigned to SSPA including SSPD and a central Grievance Redressal System. As the sole implementing agency, the SSPA will have its own Designated Account (DA) and STEP account to undertake fiduciary responsibilities.

To execute the projects basic requirements electronic equipment such as tablets, power banks, printers etc. will be given to the field officers. To ensure that they are effectively being used as per the environmental requirements Standard Operating Procedures are established to facilitate the users and project.

2. **Scope**

Electronic waste (E-waste) is a growing environmental concern in Pakistan due to its hazardous components and increasing generation. These Standard Operating Procedures (SOPs) aim to ensure the safe handling, collection, transportation, and disposal of E-waste in compliance with the legal requirements of Pakistan and in alignment with the World Bank's Environmental and Social Framework (ESF) policy and Environmental and Social Standards (ESSs).

These SOPs apply to SSPA staff, Implementing Partners and vendors involved in the management of E-waste, including producers, collectors, recyclers, and disposal facilities operating in Sindh.

3. **Legal Compliance**

All activities related to E-waste management for procurement process at SSPA must adhere to the following legal requirements:
*   Compliance with the Sindh Environmental Protection Act, 2014 and its subsequent amendments.
*   National Environmental Policy 2005
*   Hazardous Substance Rules 2014
*   Sindh Waste Management Act 2021, ,
*   National Hazardous Waste Management Policy, 2022,
*   and any other relevant regulations issued by the Environmental Protection Agency (EPA) of Pakistan. Compliance with international agreements and conventions ratified by Pakistan pertaining to hazardous waste management, including the Basel Convention.

Expected Amount of E-Waste

Based on information provided by the dismantling company, the expected amount of e-waste generated from each tablet is approximately 130 grams. With the project having procured a total of 780 tablets, the total expected e-waste can be calculated as follows:

- **Minimum Expected E-Waste**: 780 tablets×130 grams/tablet=101,400 grams≈101.4
- **Maximum Expected Waste**:780 tablets×140 grams/tablet=109,200 grams≈109.20 kilograms

Thus, the total expected e-waste from the procured tablets will range from approximately 101.4 kilograms to 109.20 kilograms.

This document consists of three parts:

Part 1- SOP for Procurement Process:

Procurement wing will ensure the following:
1. **Pre-Procurement Assessment:**
   - Before initiating any procurement process for electronic equipment, the procurement department will conduct an assessment to determine the need for the equipment and its potential environmental impact.
   - Assess the current inventory to identify any existing electronic equipment that can be repurposed or recycled.
2. **Vendor Selection Criteria:**
   - Selecting vendor/s must primarily include compliance with the Sindh Environmental Protection Act 2014 and subsequent regulations and policies related to e-waste management.
   - SSPA will explore and consider green procurement including potential buyback option as a part of IT equipment procurement contact provisions – surety bond etc. - to ensure producers' responsibility for taking back the end of life IT products.
3. **Product Evaluation:**
   - Evaluate electronic equipment based on its environmental impact, including energy efficiency, recyclability, and use of hazardous materials.
   - Give preference to products with eco-label certifications and those that comply with international environmental standards.
4. **Procurement Documentation:**
   - Document all procurement activities related to electronic equipment, including specifications, purchase orders, and invoices.
   - Maintain records of vendor certifications and compliance with e-waste regulations.

Part 2- SOP for Post-Procurement:

- **Inventory:**
  a. A robust inventory (annexed I) has been made by IT department at SSPA headquarter level and electronic devices will be handed over to implementing partner to be distributed to their field staff for enrolment. he inventory will cover all the items procured as IT equipment (including computers, laptops, printers, scanners, tablets and power banks etc.).
  b. The record will also be maintained by Implementing partner and updated information will be provided to SSPDS on quarterly basis.
  c. Annex I will be maintained and updated by IT Wing/Unit on quarterly basis.
     i. The inventory will serve as a living document and will be updated periodically to record and document any subsequent changes (new procurement/transfer/wastage etc.).

- **Allocation:**
  1. The allocation of each IT equipment will be made to the respective staff/designee by implementing partner (template annexed II) through an official notification, and accordingly will be to IT department mentioning the item name, its ID, date of allocation etc.
  2. Prior to handing over the electronic devices to implementing partner, IT department will run electronic devices' test.
  3. Implementing partner will notify any subsequent change in allocation/designee will be re-notified to IT department and movement record will be maintained in the inventory by IT department.

- **Training and Awareness:**
  1. IT Department personnel will raise awareness among implementing partners staff about the proper handling and disposal of electronic equipment to minimize e-waste generation.
  2. These awareness sessions will be conducted prior the handing over of electronic devices to implementing partner's staff.
  3. IT department has also developed guidelines for handling of thermal printers, electronic tablets and power banks. These guidelines are annexed III (separate files).

- **End-of-Life Disposal Procedures:**
  - The products' useful life will be deliberated at the time of allocation on the device.
  - After the useful life of devices is completed IT department will retrieve the devices at the storage facility dedicated for abandoned/discarded IT equipment/e-waste for temporary parking before its final disposal/ auction.
  - The potential bidders interested in buying e-waste shall be made responsible for selling the e-waste/old IT equipment to certified IT recycling units/dealers. Specialised Process Operators in Sindh. SSPDS will ensure that SPOs comply with national and provincial regulations regarding the disposal of electronic waste, including the proper handling of hazardous materials.

- **Continuous Improvement:**
  - Regularly review and update procurement policies and procedures to incorporate best practices in e-waste management and sustainability.
  - Bi-annual meeting (every six month after allocation of IT equipment) will be conducted by Procurement Department, IT Department and Environmental and Social Safeguard Specialist to assess and review overall progress against procedures and policies

- **Compliance Monitoring:**
  - Regular monitoring and compliance checks are essential to ensure responsible e-waste management and minimize environmental and health risks associated with improper disposal practices.
  - E&S Specialist along with IT, Admin and Procurement departments will cconduct annual internal audits/monitoring (checklist at annex IV) to ensure compliance with usage of electronic devices and e-waste management rules and regulations.
  - Take corrective actions in cases of non-compliance and work towards continuous improvement electronic devices usage at field level and in e-waste management practices.
- **Reporting and Accountability:**

- E-waste generation, disposal, and recycling activities will be made part of the regular E&S reporting internally and to the World Bank.

- **Reuse Plan of Electronic Devices:**
  - To ensure the proper management of e-waste and minimize waste generation throughout its life cycle, the SSPA would adopt a comprehensive strategy that emphasizes reuse, refurbishment, and responsible asset management. This strategy includes detailed processes for refurbishing equipment and managing assets throughout the project's duration and beyond.

a. Reuse and Refurbishment

Collection Process:

- **Inventory Assessment**: Conduct an initial assessment to identify and catalogue all electronic devices and equipment.
- **Collection Points**: Implementing Partner will provide designated collection points for old or unused electronic devices within the implementation areas.
- **Transportation**: Implementing Partner will arrange secure and environmentally friendly transportation of collected items to SSPA designated place.

Refurbishment Process:

- **Initial Inspection**: IT Department will perform a thorough inspection to assess the condition of the collected devices.
- **Data Sanitization**: IT Department will ensure all data is securely erased to protect sensitive information.
- **Repair and Upgradation**: IT department will facilitate in conducting from third party necessary repairs, replace faulty components, and upgrade hardware and software to meet current standards.
- **Quality Testing**: IT department will rigorously test refurbished devices to ensure they meet functional and safety standards.
- **Certification and Documentation**: Certified vendor will provide a certificate of refurbishment and maintain detailed records of the refurbishing process for accountability.

Distribution Process:

- **Reallocation**: Reallocate refurbished devices to areas where they are most needed within the project or as designated by the competent authority.
- **User Training**: Offer training sessions for users to ensure they can effectively operate and maintain refurbished equipment.

b. Asset Ownership and Management

Ownership During Project:

- **Property Rights**: All electronic devices and assets purchased for the project will remain the property of the project or the concerned departments during the project's duration.
- **Accountability**: Implementing partners are responsible for the proper use and maintenance of these assets, adhering to project procedures and guidelines.
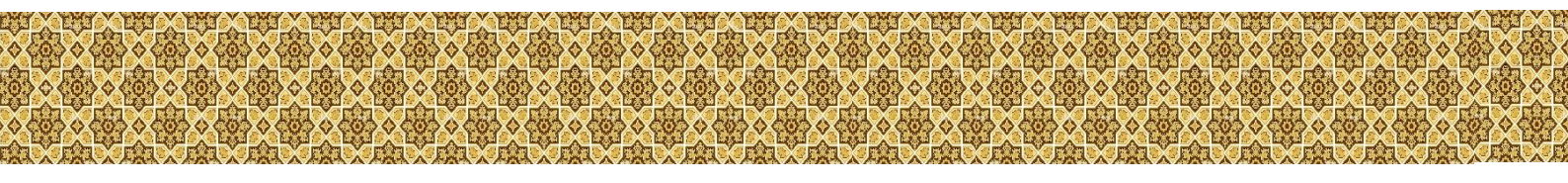
- **Reclaiming Assets**: The SSPA reserves the right to reclaim assets in cases of unsatisfactory performance or violation of project guidelines by any implementing partner.

Post-Project Ownership:

- **Completion and Handover**: Upon successful completion of the project or its components, the financed equipment will become the property of the SSPA.
- **Ongoing Maintenance**: Both the SSPA and implementing partners are responsible for the ongoing maintenance of these assets. During the project life, maintenance should be covered by the project budget. After project closure, regular departmental budgets should fund the continued upkeep of these assets.

Impacts of the Strategy

- **Extended Equipment Life**: By refurbishing and reusing electronic devices, the strategy significantly extends the life of equipment, reducing the need for new purchases and minimizing waste.
- **Cost Savings**: Refurbishing equipment is generally more cost-effective than purchasing new devices, leading to substantial cost savings.
- **Environmental Impact**: Proper e-waste management and refurbishment reduce the environmental impact by minimizing the amount of electronic waste that ends up in landfills.
- **Resource Optimization**: Efficient use of existing resources ensures that the project maximizes the value derived from every asset, contributing to overall project success.

Part -3 Standard Operating Procedures for field officers of Implementing Partners

Field Officers/operators that will be using these electronic devices will be provided basic guidelines and standard operating procedures include following:

1. **Introduction to Electronic Devices:**
   - Provide an overview of the electronic devices being used, including their features, functionalities, and purpose within the project.
2. **Training on Electronic Devices e Usage:**
   - IT department of SSPDS will conduct comprehensive training sessions to familiarize field officers with the operation of electronic devices.
   - Cover topics such as turning the device on/off, navigating the interface, using specific apps/software relevant to the project, and troubleshooting common issues user manual guides (which will be translated in local language) will be used as training material.IT department will ensure that officers understand the importance of using electronic devices efficiently to streamline project activities.
3. **Safe Handling Practices:**
   - Emphasize the significance of safe handling to prevent damage and minimize e-waste generation.
   - Instruct officers to handle electronic devices with care and avoid dropping, banging, or exposing them to extreme temperatures or moisture.
   - Encourage the use of protective cases or covers to shield tablets from physical damage.
4. **Battery Management:**
   - Educate officers on proper battery management practices to prolong battery life and reduce the need for frequent replacements.
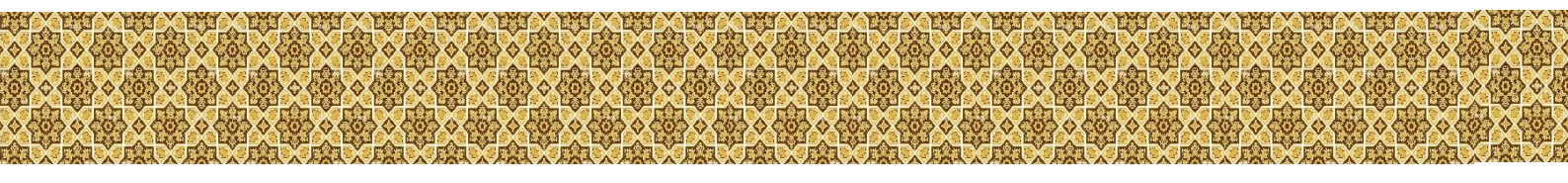
- Advise against overcharging or fully draining the battery regularly, as it can degrade battery health.
- Encourage officers to charge electronic devices only with approved chargers and power sources.

5. **Data Security Measures:**
   - Stress the importance of safeguarding sensitive data stored on electronic devices to prevent data breaches or leaks.
   - Instruct officers to use strong passwords or biometric authentication methods to secure access to the device.
   - Train officers on data encryption techniques and the importance of regular backups to prevent data loss in case of device malfunction or theft.

6. **E-Waste Management:**
   - Raise awareness about the environmental impact of e-waste and the importance of responsible disposal.
   - Provide training on SSPA SOPs for proper storage and disposal methods for electronic waste.

7. **Reporting Procedures for Damage or Malfunction:**
   - Designate a point of contact or IT support personnel responsible for addressing issues related with tablet damage, malfunction, or loss.
   - The custodians of e-devices will be instructed to report any issues promptly to prevent further damage and ensure timely repairs or replacements.

8. **Regular Maintenance and Updates:**
   - Advise officers to perform regular maintenance tasks, such as cleaning the electronic devices' screen and ports, to prevent dust buildup and ensure optimal performance.
   - Remind officers to install software updates and security patches regularly to keep electronic devices' up-to-date and secure against potential vulnerabilities.

9. **Monitoring and Compliance:**
   - Implement mechanisms for monitoring compliance with SOPs and evaluating the effectiveness of training programs.
   - Conduct periodic audits or assessments to identify areas for improvement and address any deviations from established procedures.

10. **Documentation and Review:**
    - Maintain detailed documentation of SOPs, training materials, and incident reports for future reference and review.
    - Periodically review and update SOPs as needed to reflect changes in technology, regulations, or project requirements.
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By following these SOPs, field officers of Implementing Partner can effectively utilize electronic devices while minimizing the risk of damage and ensuring responsible handling to avoid e-waste generation.
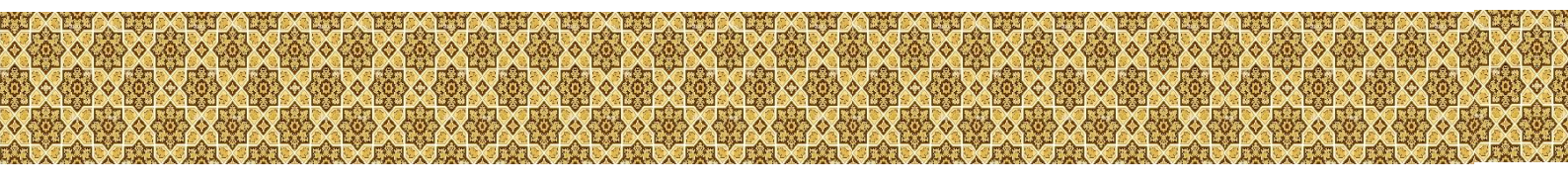
Annexure I
Inventory of Electronic Devices for Field Offices

Sr #	Device Category	Manufacturers/ Brand Name	Model #	Serial #	Useful Life of Device	Software/Operating System	Accessories	Purchase Date	Warranty Status	Asset Tag	Maintenance History	Disposition

Annexure II
**Allocation of Electronic Devices to Field Officers**

Name of the Device	EMIE No	PTI Approval	Software Update	Application Update	Health Facility Name	Name of the Assigned Officer	Contact Number	Email Address
Electronic Tablet								
Portable Printer								
Power Bank								
Charger								
Any other Accessory								

Annex IV
Monitoring Checklist for Usage of Electronic Devices and E-Waste Management
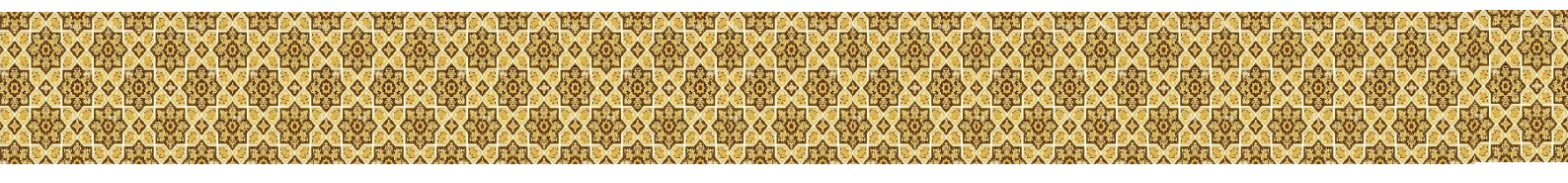
a. Monitoring Checklist for Using Electronic Devices

Electronic Device Monitoring Checklist	Compliance
Aspect	**Yes/No**
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Device Usage	
- Are electronic devices used for their intended purposes?	
- Do employees adhere to the organization's acceptable use policy for electronic devices?	
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Device Inventory	
- Is there an up-to-date inventory of all electronic devices?	
- Are devices properly labeled and assigned to specific users?	
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Security Settings	
- Are device security settings configured to meet devices cybersecurity standards?	
- Are devices protected with passcodes, encryption, and security software?	
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Software Updates	
- Are regular software updates and patches applied to ensure device security?	
- Is there a system to monitor and manage software updates for all devices?	
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Data Backup	
- Do employees regularly back up data stored on electronic devices?	
- Is there a backup and recovery plan in place for data loss or device failure?	
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Physical Security	
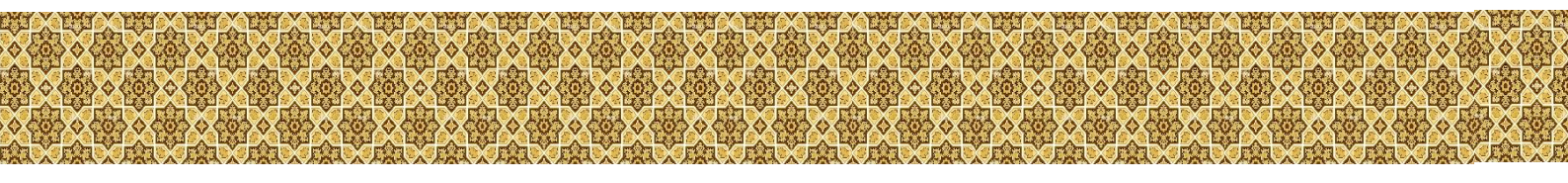
Electronic Device Monitoring Checklist	Compliance
- Are electronic devices physically secured against theft or unauthorized access?	
- Is there a protocol for reporting lost or stolen devices and remote data wiping if needed?	
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Battery Health	
- Do employees follow best practices for battery health, such as avoiding overcharging and proper storage?	
- Are battery replacement needs monitored and addressed promptly?	
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Device Maintenance	
- Are employees responsible for regular maintenance and cleaning of their devices?	
- Is there a process for reporting and addressing technical issues or malfunctions promptly?	
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User Training	
- Have employees received training on the proper use and care of electronic devices?	
- Are users aware of security best practices and potential risks associated with device misuse?	
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Compliance Check	
- Are electronic device usage practices in compliance with project's policies and regulations?	
- Are periodic audits conducted to assess device usage and identify areas for improvement?	
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Please mark the boxes (yes/no) accordingly to evaluate compliance with each aspect of the electronic device monitoring checklist.

Any other Remarks:

b. E-Waste Monitoring Checklist	Compliance
Aspect	**Tick Mark**
Inventory Management	☑
- Are all electronic devices inventoried and tracked in a centralized system?	☐
- Is there a record of the quantity, type, and condition of electronic devices in use?	☐
Collection and Storage	
- Are designated collection points available for returning e-waste?	☐
- Is there a secure storage area for collected e-waste before disposal or recycling?	☐
Data Security	
- Are procedures in place to ensure data wiping or destruction before disposal?	☐
- Is sensitive information securely handled during e-waste dismantling and disposal?	☐
Disposal and Recycling	
- Are e-waste disposal and recycling activities carried out by authorized and certified facilities?	☐
- Is there documentation of the disposal process and records of receipts from recycling facilities?	☐
Employee Training	
- Have employees received training on proper e-waste handling and disposal procedures?	☐
- Are staff members aware of the risks associated with improper e-waste management?	☐
Compliance with Regulations	
- Are e-waste management practices in alignment with local and national regulations?	☐
- Are regular internal audits conducted to ensure adherence to e-waste management laws?	☐
Supplier and Vendor Compliance	
- Do suppliers and vendors comply with e-waste management regulations and provide disposal guidelines for electronic products?	☐
- Are procurement contracts reviewed to include e-waste disposal clauses?	☐
Monitoring and Reporting	
- Is there a monitoring system in place to track e-waste management activities and compliance?	☐
- Are regular reports generated and reviewed to assess e-waste management performance?	☐

b. E-Waste Monitoring Checklist	Compliance
Environmental Impact	
- Are measures taken to minimize the environmental impact of e-waste disposal and recycling processes?	☐
- Is there a process to assess and mitigate potential environmental risks associated with e-waste management?	☐
Continuous Improvement	
- Are feedback mechanisms in place to gather input on e-waste management practices?	☐
- Is there a system for implementing corrective actions and continuous improvement based on monitoring findings?	☐

Please mark the boxes (yes/no) accordingly to evaluate compliance with each aspect of the e-waste management checklist.

Any other Remarks: _____

_____

Name:
Designation:

Signature_____