Republic of the Philippines Department of Education

PROJECT FOR LEARNING UPGRADE SUPPORT AND DECENTRALIZATION

(PLUS-D)

E-Waste Management Plan (E-WMP)

As of December 2025

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List of Abbreviations and Acronyms

A&E	Accreditation and Equivalency
AI	Artificial Intelligence
ALS	Alternative Learning System
CBA	Computer-Based Assessment
CT	Curriculum and Teaching
DENR	Department of Environment and Natural Resources
DepEd	Department of Education
E&S	Environment and Safety
EdTech	Educational Technology
ESCP	Environmental and Social Commitment Plan
ESD	Education for Sustainable Development
EWMP	Electronic Waste Management Plan
GM	Grievance Mechanism
GoP	Government of the Philippines
GRM	Grievance Redress Mechanism
ICT	Information and Communications Technology
LAC	Learning Action Cells
LGU	Local Government Unit
M&E	Monitoring and Evaluation
NEAP	National Educators' Academy of the Philippines
NGO	Non-Government Organization
PAAC	Public Assistance Action Center
PEPT	Philippine Educational Placement Test
PISA	Programme for International Student Assessment
PLUS-D	Project for Learning Upgrade Support and Decentralization
POM	Project Operations Manual
PMO	Project Management Office
ProcMS	Procurement Management Service
RAPID	**R**each all children, **A**ssess learning, **P**rioritize the fundamentals, **I**ncrease the efficiency of instruction, and **D**evelop psychosocial health and wellbeing
REDP	Regional Education Development Plan
RO	Regional Offices
ROGP	Regional Offices Grant Program
SBM	School-Based Management
SDO	Schools Division Offices
SEA-SH	Sexual Exploitation and Abuse-Sexual Harassment
SGP	School Grant Program
SIP	School Improvement Plan
STRATMA	Strategic Management
TA	Technical Assistance
TEACEP	Teacher Effectiveness and Competencies Enhancement Project

T&L	Teaching and Learning
TPD	Teacher Professional Development

Electronic Waste Management Plan for the
Project for Learning Upgrade Support and Decentralization (PLUS-D)

I. Introduction

The Electronic Waste Management Plan (EWMP) is an integral component of the Project for Learning Upgrade Support and Decentralization (PLUS-D), which aims to strengthen the foundational literacy and numeracy of primary education learners and improve the learning outcomes in reading and mathematics of lower secondary education learners in public schools nationwide. This initiative is aligned with the Quality Basic Education Development Plan (Q-BEDP) 2025–2035, which charts the strategic course for basic education reform in the country. PLUS-D also supports the President's 5-Point Reform Agenda, particularly the thrust toward digitalization to modernize basic education and boost the global competitiveness of Filipino learners.

As PLUS-D advances the digital transformation of education by providing modern ICT tools and resources, the generation of electronic waste (e-waste) from outdated, defective, or obsolete equipment becomes an inevitable challenge. The EWMP addresses this by ensuring that e-waste is managed responsibly—mitigating environmental and health risks while promoting sustainability. As a core element of the project's commitment to a clean and eco-friendly learning environment, the EWMP reflects the broader vision of improving the quality of basic education through responsible and future-ready practices.

A. Project Description

The PLUS-D aims to strengthen the foundational literacy and numeracy of primary education learners, and improve the learning outcomes in reading and mathematics of lower secondary education learners in public schools nationwide. PLUS-D is expected to benefit 21.2 million learners of grades K to 10, including those enrolled in the Alternative Learning System (ALS), and 805,777 teachers.

PLUS-D has three components: (a) **Component 1 – System-Level Interventions**; (b) **Component 2 – Targeted Interventions**; and (c) **Component 3 – Monitoring and Evaluation, and Project Management**. Implementation will combine centralized (Components 1 and 3) and decentralized (Component 2) arrangements under direct responsibility of DepEd Central Office, selected DepEd Regional Offices (RO) and public schools offering Kindergarten to Grade 10. It is important to note that projects and programs funded by other development organizations support the improvement of teaching and learning (T&L) conditions in upper secondary education (Grades 11 and 12). PLUS-D would be implemented over six years starting in 2026. It would be funded by a World Bank loan of US$ 600 million and a GoP's contribution equivalent to US$ 60 million as presented in Table 1 below. Details of the project components follow. Details of the project components follow.

Table 1. Project Costs

Components	**Funds by Source (USD million)**		
	World Bank	**GoP**	**Total**
1 – System-level Interventions	286.1	2.3	490.7[(a)]
2 – Targeted Interventions	296.0	57.7	150.9[(b)]
3 – Monitoring and Evaluation, and Project Management	17.9	0	18.4
Total Project Cost	**600.0**	**60.00**	**660.0**

Notes: includes operations and maintenance costs in the amounts of (a) US$ 2.3 million, and (b) US$ 0.7 million

Component 1 – System-Level Interventions (estimated cost: US$ 288.4 million including US$ 2.3 million equivalent from the GoP). This component complements DepEd's programs to improve the quality of education in Grades K to 10 through the support to innovative activities. It supports system-wide activities to recover or accelerate learning in primary education, as well as improve the quality of lower secondary education nationwide through centralized implementation by DepEd Central Office with technical guidance from the Strategic Management (STRATMA) and Learning Systems (LS) strands. Benefiting the entire K-10 education sub-system, this component aims to close learning gaps for K-6 learners and enhance learning outcomes for Grades 7-10 and ALS learners, including by strengthening teacher qualifications and T&L conditions. Specific support to Grades K-6 would include learning recovery and acceleration, innovative assessments, resources for learners with disabilities and Indigenous Peoples (IP) learners, and system capacity enhancements. The following systemic clusters of interventions would be financed by this component.

- **Learning acceleration and recovery**: technical and operational support for enhancing and implementing a nationwide program to address learning gaps in K-6 with an emphasis on improving foundational literacy and numeracy and by complementing the Academic Recovery and Accessible Learning (ARAL) Program. For Kindergarten learners, the emphasis would be on improving their readiness for primary education. This program targets the improvement of foundational literacy and numeracy skills because they are paramount for the development of more advanced skills (e.g., 21st century skills). DepEd's LS Strand would be provided with TA for the design enhancement and implementation of this program, which would complement the ARAL Program and build on international good practices that are aligned with the RAPID Framework, jointly developed by the World Bank and other development organizations, for accelerating and recovering learning: Reach all children, Assess learning, Prioritize the fundamentals, Increase the efficiency of instruction, and Develop psychosocial health and wellbeing (World Bank et al. 2022a).

  The implementation of the ARAL Program has been following a phased approach. It started with the partial implementation of the ARAL reading program in 40 percent of schools in need of assistance in school year (SY) 2025-2026. The implementation of ARAL mathematics and science programs will start in SY 2026-2027 and SY 2027-2028 respectively. The implementation of ARAL reading program will continue in the next SYs, i.e., it will not be a one-off delivery. DepEd needs not only additional funds to rollout the ARAL Program, whose SY 2025-2026's budget is only PHP 1.8 billion, i.e., less than 50% of the total need, but also technical assistance to further improve the design of the ARAL reading program, evaluate it, as well as design and evaluate ARAL mathematics and science programs. Critical needs for the rollout of the ARAL Program include support to tutors, development of resources for teachers and learners, and monitoring and evaluation.

  The PLUS-D learning acceleration and recovery program would complement the ARAL Program by addressing the needs mentioned above. It would include regular assessments of foundational numeracy and literacy skills, tailored support to teachers and tutors through training and mentoring, and specific T&L resources. It would finance technical assistance (TA), purchase of goods and services, trainings, and incremental operating costs. The program would last 3 years and be delivered by regular teachers at their schools. In the first year of PLUS-D implementation, the program would provide technical assistance for correcting the course of, and scaling up the ARAL reading program, as well as its monitoring and evaluation, while also supporting the design of ARAL mathematics program. In the subsequent years, it would provide additional funds to the implementation of both ARAL reading and mathematics programs, while also assisting with their effective implementation. This approach would ensure that PLUS-D's learning recovery and acceleration program and ARAL Program complement each other. In terms of funding, PLUS-D would provide yearly amounts equivalent to approximately PHP 3.8 billion over 3 years on average, which would help address the currently observed ARAL Program's budget deficit.

  The enhanced program design, which would be proposed by an organization to be contracted by DepEd through PLUS-D, would specify the duration of its classes per day and academic year considering that daily extensions of up to 60 minutes are envisioned. The program is supposed to support 3 grades per year to maximize the impacts on learners, particularly those who would be enrolled in schools when the program launches, as follows: Grades 4-6 in year 1 (of the program), Grades 2-4 in year 2, and K-2 in year 3. This way, all Grades 1-6 learners who were in schools when the program started would have benefitted by it at the end of the 2nd year. Moreover, the 3rd year of the program would benefit learners who were not enrolled in Grades 1-6 in the 1st year, i.e., they would comprise a new cohort of learners.

Around 5.9 million learners can benefit from the program each year, totaling 17.7 million distinct (counted once) learners over 3 years as potential beneficiaries.

First, an estimated 40,000 elementary education master teachers would be trained in program content, pedagogy, and assessments. Subsequently, the master teachers will train the teachers of each year's grade range (see above) at the school-level. Teacher trainings are envisioned to last five days and be repeated before or right at the start of each academic year. Trainings would focus on addressing learning gaps identified through the assessments embedded in the program through tailored content and the following instructional approaches: structured pedagogy, learner-centered practices, as well as teaching through arts, sports, and play. Kindergarten teachers would be trained to adequately develop their young learners' language and socioemotional skills in preparation for initiating primary education. Moreover, teachers would learn strategies to support boys in order to close the gender learning gap.

- **Teacher Professional Development (TPD):** professional development of Grades 7-10 and ALS teachers by building on the Teacher Effectiveness and Competencies Enhancement Project's (TEACEP's) program for teachers and school leaders in Grades K-6. This cluster of activities would: (a) review issues in the current TPD policies and both pre- and in-service teachers training programs; (b) provide TA for the development and implementation of a project-specific TPD program, including coaching and evidence-based training informed by observation of teaching practices in classrooms; and (c) develop resources to enhance teaching practices, including scripted lessons and teacher guides. The key findings of the review of the existing pre- and in-service teachers training programs would inform the design of the PLUS-D TPD program. The resources to be developed to train teachers under the PLUS-D TPD program are expected to be considered for enhancing the existing pre-service and other in-service programs, which would lay the foundations for a virtuous cycle of teacher qualifications improvement in the Philippines. It is expected that around 272,000 Grades 7-10 teachers and 7,800 ALS teachers would benefit from these activities by the end of the project implementation.

  DepEd's LS Strand, which also includes the National Educators' Academy of the Philippines (NEAP), would be provided with TA for the design and implementation of a comprehensive and evidence-based TPD program to enhance the qualifications of Grades 7-10 and ALS teachers and help address the foundational learning gaps observed in the country. The program would build on TEACEP's in-service teacher training and coaching activities, as well as on international good practices that are aligned with the World Bank's framework for strengthening and supporting teachers for improved student learning.

  PLUS-D's support to TPD would complement DepEd's current programs to enhance teachers' qualifications, which focus mostly on the mastery of content. Through PLUS-D, innovations and partnerships with national and international institutions and organizations, including those from the private sector with proven experience in TPD, would be pursued to the highest extent possible to provide DepEd and NEAP with knowledge and resources to maximize the program's impacts.

  The PLUS-D TPD program will include: (a) novel regular classroom observations of teachers using an adapted version of the World Bank Teach Secondary tool; and (b) a school-level group coaching program to promote peer learning, collaborative lesson planning, and the adoption of effective teaching practices through regular feedback informed by classroom observations, which has not been provided through DepEd's programs yet. It would also include the preparation and utilization of resources aimed at engaging and facilitating learning for male learners who have been outperformed by their female peers over the past recent years. The logistical support to annual teacher training activities would be financed by DepEd's regular budget in alignment with the complementarity with PLUS-D's TPD program.

  PLUS-D's TPD program would encompass training in the use of educational technologies, blended learning methods, digital skills development, and gender- and climate-sensitive content and pedagogical practices. Climate-sensitive content and pedagogies would serve as a key driver and be embedded in the TPD, with an estimated budget allocation from the World Bank loan of US$ 21 million additional to the total PLUS-D's TPD program budget. Trainings are expected to last 5 to 10 days per year, with considerations for shorter periods, and would include both asynchronous and face-to-face delivery methods. The final phase of the cascade approach would occur at schools, leveraging existing learning action cells (LACs) to reinforce collaborative teaching practices. Recordings of training sessions would be available for future utilization as needed.

Experienced teachers, including master and head teachers, would be first trained in accordance with the program structure and objective. They would be provided with tablets for observing (through Teach) and coaching their peers at school level. The coaching program would promote effective classroom management practices, student-centered pedagogy, inclusive and climate-sensitive teaching practices, stimulation of male learners, and gender-based violence (GBV) prevention. It is envisioned that each coach would assist up to 10 teachers and conduct around six classroom observations per academic year over four years. Such strong support to master and head teachers would be a novelty in the Philippines' education system promoted through PLUS-D.

- **School leadership:** another PLUS-D's innovation would be the provision of assistance to Grades 7-10 school leaders to enhance their managerial and leadership skills following an approach similar to the aforementioned TPD program. School principals, master teachers, and supervisors of DepEd School Division Offices (SDOs) would be upskilled. The school leadership training program would include climate-related content. It is estimated that around 59,000 leaders of schools that offer Grades 7-10 would be trained through this activity.

- **Education assessments:** PLUS-D would support the following two novel activities: (a) development and administration of an assessment of socioemotional skills for Grades 1, 4, 7, and 10; and (b) annual administration of PISA for Schools in a national representative sample of public schools during project implementation.

- **T&L conditions:** (a) support to DepEd's strategic policy lever on digitalization through the analysis of the technological and operational readiness of the system for optimal education technology (EdTech) use, development of a national strategy for digitalization in education, and development of EdTech standards; (b) development and production of accessible resources for learners with disabilities; and (c) develop T&L resources for IP learners in their languages, train teachers in the development of these resources and establish safeguards standards to support IP learners.

- **Other systemic improvements:** (a) review the ALS delivery model and evaluate the feasibility of online implementation; (b) assess the capacity of selected DepEd Central and RO units and provide training to address identified key capacity gaps; and (c) provide TA to design and implement a comprehensive communications campaign for the proposed Project and the broader 5PT Agenda.

Component 2 – Targeted Interventions (US$ 353.7 million including US$ 57.7 million equivalent from the GoP). In alignment with DepEd's decentralization initiatives, which are represented as a policy lever of the 5-Point Agenda, this component finances targeted activities to accelerate learning at the elementary level and improve lower secondary education quality in selected regions and schools. Implementation will be a responsibility of the top ten DepEd ROs determined by the decentralization readiness index, which is calculated through financial and administrative capacity indicators, along with their schools. These regions are: III, I, VIII, CAR, IX, VII, XI, V, X, and II.

Approximately 11,150 schools enrolling about 8.6 million K-10 learners will benefit from this targeted support through two grant programs: Regional Offices Grant Program (ROGP) and School Grant Program (SGP). A grant agreement would be signed between DepEd and each beneficiary RO or school to regulate the technical, fiduciary and safeguards elements of the respective grant program. It is expected that the performance of learners enrolled in beneficiary SGP schools in ELLNA and PISA would be better than the national performance, given the additional support of Component 2. Supplemental indicators similar to the Project Development Objectives indicators would monitor the progress with the implementation of Component 2 and would have end targets 20% and 25% greater than the national end targets for the indicators on ELLNA and PISA, respectively. The interventions financed by this component are presented below.

- **TA:** Before transferring any funds to schools and RO, DepEd would invite these institutions to prepare improvement plans with the objectives of improving learning outcomes and enhancing capacity. This assistance will be provided by building on a lesson from the implementation of the Third Elementary Education Project (TEEP) that highlights that school grants should be paired with capacity enhancement activities to maximize results and potentialize school-level planning. Ahead of the launch of the ROGP and SGP, TA would (a) support eligible schools and ROs in preparing improvement plans (School Improvement Plan – SIP and Regional Education Development Plan – REDP), including the development of grant program guidelines, and (b) evaluate the prepared plans. During the implementation of the ROGP and SGP, TA would (a) manage and monitor the implementation of both programs, and (b) provide regular, high-quality procurement and financial management support to Grantees during implementation of the programs, and (c) provide guidance on the preparation of climate-smart improvement plans. DepEd would contract one organization with experience in education grants management to provide the mentioned TA.

- **Implementation of approved SIPs and REDPs:** Eligible activities for financing through the SGP and ROGP would include consultants' services (for TA), non-consulting services, purchase of goods, training and operating costs. To reduce gender gaps in learning outcomes, the SGP will earmark 10 percent of grant funding and outline explicit mechanisms to improve gender equity in the SIP. The beneficiary SGP schools that achieve the top five largest reductions of learning outcomes gender gaps would be publicly recognized by DepEd and rewarded with either a fully equipped computer classroom or library. Schools would be required to prepare their SIPs in close collaboration and consultation with their surrounding communities and respective Local Government Units (LGUs), and the latter may want to add their own education funds for the implementation of the SIPs by expanding PLUS-D SGP-supported activities.

  Given the SGP's focus on learning outcomes improvement, parents would play a key role in monitoring their children's progress and communicating regularly with their children's teachers. Active participation from families and communities would also be essential to ensure a shared understanding of the project's anticipated impact and to provide feedback on the SIP. Feedback would be gathered at town hall meetings at the baseline, mid-point, and end of project implementation. The feedback loop would be evaluated regularly, and beneficiary participation would also be measured as part of the Results Framework. The proposed engagement of families and communities in the preparation and implementation of the SIPs builds on a lesson from the implementation of the TEEP about the relevance of communities' participation in, and contributions to this type of program.

  The activities presented below are eligible for financing through the SGP:
    - School-level support to learning improvement (e.g., tutoring on specific subjects/contents).
    - Specific training activities for teachers (e.g., motivation and engagement toward the achievement of SIP's objectives, and classroom management), which shall not overlap with the support to teachers to be provided through Component 1.
    - School-level activities to enhance the school's leadership capacity (e.g., peer learning).
    - Utilization of generative artificial intelligence (AI) to support teaching and learning at the school level, including for learners' tutoring. AI-powered activities are expected to be informed by the research conducted by DepEd's Education Center for Artificial Intelligence Research.
    - Purchase of T&L resources, toys, storybooks, school furniture, and recreation equipment for Kindergarten.
    - Purchase of T&L resources (e.g., books, equipment for teaching science or ICT), furniture, and equipment for schools.
    - Printing services.
    - *Gender*: awareness-raising campaigns or counseling services to address GBV and prevent early marriage or pregnancy. To reduce gender gaps in learning outcomes, the SGP would earmark 10 percent of grant funding and outline explicit mechanisms to improve gender equity in the SIP. The beneficiary SGP schools that achieve the top five largest reductions of learning outcomes gender gaps would be publicly recognized by DepEd and rewarded with either a fully equipped

computer classroom or library. Schools should ensure no funding overlap with gender activities supported by other programs or sources.

- *Climate change*: TA and information campaigns to change the behavior of learners towards climate change. Campaigns through leaflets and wall signs could incentivize learners to preserve the school's gardens and surrounding green spaces, for instance. Moreover, schools could purchase tools to engage learners in tree planting events, for example. Schools should ensure no funding overlap with climate change activities supported by other programs or sources.
- *Compulsory fiduciary functions*: assistance in procurement and financial management for each beneficiary to perform its fiduciary functions.
- Incremental operating costs associated with the implementation of the grant.

As for the ROGP, the activities presented below are eligible for financing:

- Decentralized support to the enhancement of teachers' qualifications as needed and without overlapping with the support to teachers to be provided through Component 1.
- Decentralized support to learning improvement.
- TA and training to enhance the capacity of the regional office in areas such as planning, budgeting, strategic thinking, data collection and analysis.
- *Compulsory fiduciary functions*: assistance in procurement and financial management for each beneficiary to perform its fiduciary functions.
- Incremental operating costs associated with the implementation of the grant.

The SGP includes a performance-based mechanism to foster the accountability of beneficiary schools and maximize the impact of the program on student learning outcomes. This mechanism would also promote a results-orientation culture among beneficiary schools and help ensure that they are held accountable to improved learning outcomes (schools will have a skin in the implementation game).Through this mechanism, large-size schools, i.e., those that enroll at least 500 K-10 learners, will have their performance evaluated through the administration of ELLNA's literacy and numeracy assessments, as well as the National Achievement Test for Grade 6 in reading and mathematics in the 2nd year of the implementation of the SGP. Other assessments that can be conducted by DepEd for these grades and subjects will be also acceptable. The average of the scores in these assessments will be used to classify schools. The top 600 large-size schools, which represent approximately 10 percent of the total number of schools, will be eligible for an additional allocation of funds under the performance-based mechanism to finance activities identified in their SIPs.

Given the additional support to activities aimed at improving learning outcomes through Component 2, it is expected that the performance of learners enrolled in schools that would benefit from this component in ELLNA and PISA would be better than that of learners enrolled in other schools nationwide. Therefore, the following supplemental indicators, which will be detailed in the POM and be measured throughout the project implementation, would be used to capture the related contribution of Component 2 to learning improvement (four indicators for each one of the five regions that would benefit from Component 2):

- Grade 3 learners performing at Proficient level or above in ELLNA's literacy assessment.
  - End target = 3 percentage points greater than the baseline of each region.
- Grade 3 learners performing at Proficient level or above in ELLNA's numeracy assessment.
  - End target = 6 percentage points greater than the baseline of each region.
- 15-year-old learners performing at proficiency level 2 or above in PISA's reading assessment.
  - End target = 5 percentage points greater than the baseline of each region.
- 15-year-old learners performing at proficiency level 2 or above in PISA's mathematics assessment.
  - End target = 10 percentage points greater than the baseline of each region.

- **Decentralized Support to Digitalization**: while DepEd aims to provide all teachers with laptops by 2028, its Computerization Program could only benefit approximately 140,000 teachers since 2022. PLUS-D support to digitalization will help DepEd address this gap through complementary financing. This activity aims to provide laptops to approximately 150,000 additional teachers, basically doubling the number of beneficiaries of the Computerization Program. The abovementioned ROs would be responsible for the provision of laptops to selected teachers in accordance with the results of the technological and operational readiness assessment to be supported through Component 1. DepEd would ensure that only Grades K-10 teachers who had not received laptops at the time of the launch of the procurement activities under Component 2 would be eligible to benefit from PLUS-D's digitalization program. The laptops to be provided to teachers would be energy efficient, i.e., they are expected to consume between 30 and 65 percent less energy than standard devices, which would add US$14 million (from the World Bank loan) to the total cost of devices that could be purchased without this feature.

Component 3 – Monitoring and Evaluation, and Project Management (estimated cost: US$ 17.9 million). This component aims to strengthen DepEd's capacity for monitoring and evaluation (M&E), advance decentralization in the education system, and ensure effective management and monitoring of Project implementation. It would finance: (a) strategic advice on effective education system M&E; (b) assistance to promote M&E through decentralization; (c) improvement of DepEd's service delivery capacity; (d) design and implementation of evaluations and policy/program analysis including about the impacts of decentralization supported by Component 2 on educational outcomes; (e) salaries for the Project Management Office (PMO) team of specialists responsible for daily project management and compliance with fiduciary and safeguards requirements; (f) PMO training; (g) project incremental operating costs; (h) design and implementation of a project-specific Grievance Redress Mechanism (GRM); (i) citizen engagement mechanisms, including through town hall meetings on SIPs; and (j) design and implementation of studies and evaluations related to the project. Component 3 will be implemented by the following DepEd units: STRATMA Strand, Procurement Management Service, Finance Service, and Project Management Service (PMS).

B. E-Wastes from the Project

PLUS-D's Components 1 and 2 activities may pose environmental risks related to the procurement and disposal of ICT equipment. The purchase and eventual disposal of these devices could contribute to increased e-waste if not properly managed at the end of their life cycle. In particular, the regional distribution of equipment and devices will be determined during project preparation or at the start of implementation, which will influence the volume and management of future e-waste across various locations.

Managing e-waste effectively is critical to minimizing the environmental footprint of PLUS-D and ensuring that project activities are aligned with sustainable development goals. Improper disposal of electronic waste can lead to significant environmental and health risks, including soil and groundwater contamination from hazardous substances such as lead, mercury, and cadmium, as well as the unnecessary accumulation of non-biodegradable plastics and metals in landfills.

Under PLUS-D, the primary ICT equipment to be procured are laptops which typically have an average lifespan of around five years. Over time, these devices will generate different types of waste, including used or defective batteries, broken screens, worn-out plastic casings, and obsolete internal components such as hard drives, memory chips, and circuit boards. Many of these components contain toxic materials that can harm ecosystems if not properly recovered, treated, or disposed of. Without an effective system in place, the cumulative impact of electronic waste generated through the project could be significant, particularly given the regional scale of device distribution.

To address these risks, PLUS-D builds on the DepEd's existing robust policies, procedures, and systems for green procurement and asset management, including the responsible disposal of unserviceable government assets such as electronic equipment. DepEd's decentralized procuring units and the reconstituted Committee on Disposal ensure compliance with these guidelines at both central and regional levels

Specifically for PLUS-D, the Administrative Service–Asset Management Division (AS-AMD) has been designated as the oversight for managing e-waste generated, while the regional counterparts of AS-AMD will oversee e-waste management activities for Component 2. The AMD will collaborate with the Information and Communication Technology Service (ICTS) on the disposal procedure, particularly on inspection of the unit as they possessed the expertise on assessing the technical aspects of the unit such as its hardware and software. Through a combination of environmentally conscious procurement, diligent asset tracking, and adherence to standardized disposal procedures, the project seeks to ensure that ICT equipment is used efficiently during its serviceable life and properly disposed of at the end of its cycle, thus minimizing environmental impacts and promoting responsible resource management.

II. Policy and Legal Framework

The management of e-waste under PLUS-D is governed by relevant national laws, regulations, and guidelines that ensure the responsible procurement, use, and disposal of ICT equipment. Adhering to these legal requirements, as well as applicable ISO standards, is critical to preventing environmental and health risks associated with improper e-waste handling. This section outlines the key national policies, laws, and orders that apply to the implementation of PLUS-D. A summary table of the relevant environmental laws and regulations follows below.

Table 2: Relevant Environment Laws/Orders to PLUS-D

Environmental Law/Order	Description
Law	
Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990 (Republic Act No. 6969)	RA 6969 prohibits the importation, manufacture, processing, sale, distribution, use and disposal of chemical substances and wastes that present unreasonable risk and/or injury to health and the environment.
Ecological Solid Waste Management Act of 2000 (Republic Act No. 9003)	The law establishes mechanisms for waste minimization, resource recovery, appropriate collection, transport services, environmentally sound treatment, and disposal of garbage. It also provides the mandatory segregation of wastes at households, commercial establishments, industries, institutions, hospitals, etc.
New Government Procurement Act (Republic Act 12009), specifically Section 73 on Green Public Procurement Strategy	• Procuring Entities to procure Goods, Infrastructure Projects, and Consulting Services with reduced environmental impact through their life cycle. • Procuring entities to integrate and implement green practices, as well as environmentally relevant criteria or requirements in the design and specifications of their procurement projects.
Philippine Clean Air Act of 1999 (Republic Act No. 8749)	While primarily focused on air quality, this law also addresses the reduction of air pollution, including the control of toxic emissions from improper disposal or incineration of e-waste.

Administrative Order	
Institutionalizing the Structure, Mechanisms, and Standards to Implement the Government Quality Management Program (Executive Order No. 605, series of 2007)	The Executive Order requires all government agencies to implement the Government Quality Management Program (GQMP) to enhance public sector performance through the adoption of International Organization for Standardization (ISO) 9000 series Quality Management Systems. **ISO 9000** is a set of international standards for quality management systems, with **ISO 9001** being the most notable, helping organizations meet customer and regulatory requirements. In the Philippines, its adoption in government offices is crucial for enhancing service delivery by streamlining processes, increasing public trust through improved transparency and accountability, ensuring compliance with legal mandates to reduce bureaucratic red tape, and fostering continuous improvement to enhance public service quality. Overall, ISO 9001 certification aims to create a more citizen-centered, innovative, and efficient public sector.
Title III – Procedural Manual on Hazardous Waste Management (DENR Administrative Order No. 1992-29)	Title III of the Department of Environment and Natural Resources (DENR) Administrative Order 1992-29 of the implementing rules and regulations of Republic Act 6969 outlines the legal and technical requirements of hazardous waste management.
Revised Procedures and Standards for the Management of Hazardous Wastes (DENR Administrative Order No. 2013-22)	The administrative order classifies waste electrical and electronic equipment (WEEE) as hazardous waste with waste number M506. WEEEs include all waste electrical and electronic equipment that contains hazardous components such as lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyls (PBBs), and polybrominated biphenyl ethers (PBDEs) that includes its peripherals, i.e., ink cartridges, toners, etc.
DENR-EMB Technical Guidelines 2015	The guidelines outline the specific categories of treatment, storage, and disposal facilities. Hazardous waste is to be collected only from DENR-recognized hazardous waste transporters and treaters.
DepEd Educational Facilities Manual (2010)	Chapter V – Educational Facilities Management provides the procedures for the procurement of infrastructures, goods, and services and the disposal of educational facilities, including unserviceable equipment. The manual also prescribes waste segregation policy and the provision of separate garbage cans for dry waste, wet waste, and hazardous, toxic wastes. It requires the provision of dedicated and accessible areas for collection and storage of non-hazardous materials for recycling such as paper, corrugated cardboard, glass, plastics and metals and separate area for plant-based landscaping debris.

DepEd Handbook on Property and Supply Management (2013)	Chapter IV – IV. Disposal This section provides guidelines and procedures for proper disposal of government property. It discusses the reasons and modes of government property disposal, disposal committee members, types of assets that are subject to disposal, requisite documents for disposal, and disposal procedure.
DepEd Order No. 5, s. 2014 - Implementing Guidelines on the Integration of Gulayan sa Paaralan, Solid Waste Management and Tree Planting Under the National Greening Program (NGP)	This requires strict compliance with the guidelines set in DepEd Order in the implementation of the Solid Waste Management in all governance levels from Central Office, Regional Offices, Schools Division Offices and schools. The disposal of solid waste in the SDO is lodge under the Office of the Schools Division Superintendent (OSDS), managed by the Administrative Service section thru the Division Disposal Committee with the presence of the Commission of Audit (COA) representative.
Institutionalizing the Structure, Mechanisms, and Standards to Implement the Government Quality Management Program (Executive Order No. 605, series of 2007)	The Executive Order requires all government agencies to implement the Government Quality Management Program (GQMP) to enhance public sector performance through the adoption of International Organization for Standardization (ISO) 9000 series Quality Management Systems.
Commission on Audit (COA) and Department of Budget (DBM) Joint Circular Memo No. 2024-1, January 30, 2024" "Revised Manual on the Disposal of Government Properties"	States that the systematic and timely disposal proceedings are essential to avoid further deterioration of the properties and consequent depreciation in their value. It would ensure the elimination of the continuing storage costs of the government, relieve accountable employees from unnecessary of excess accountability, and effectively decongest government offices

International Standards and References	
ISO 14001:2015 (Environmental management systems — Requirements with guidance for use)	ISO 14001 is the internationally recognized standard for environmental management systems (EMS). It provides a framework for organizations to design and implement an EMS and continually improve their environmental performance. By adhering to this standard, organizations can ensure they are taking proactive measures to minimize their environmental footprint, comply with relevant legal requirements, and achieve their environmental objectives. The framework encompasses various aspects, from resource usage and waste management to monitoring environmental performance and involving stakeholders in environmental commitments.
ISO 45001:2018 (Occupational health and safety management systems — Requirements with guidance for use)	An international standard that specifies requirements for an occupational health and safety (OH&S) management system. It provides a framework for organizations to manage risks and improve OH&S performance. The standard establishes criteria for an OH&S policy, objectives, planning, implementation, operation, auditing and review. Key elements include leadership commitment, worker participation, hazard identification and risk assessment, legal and regulatory compliance, emergency planning, incident investigation and continual improvement.

III. Roles and Responsibilities

Effective implementation of the EWMP under the PLUS-D project requires a clear delineation of roles and responsibilities across various stakeholders involved in the management of ICT equipment throughout the project lifecycle. This section outlines the key responsibilities of the PMO, AS-AMD, DepEd ROs, Schools, and Service Contractors. These stakeholders will ensure the responsible procurement, use, and disposal of electronic devices, in alignment with the project's objectives and e- waste management guidelines. The roles and responsibilities are organized according to the project's two components—Component 1 (centralized initiatives) and Component 2 (decentralized regional support)—with an emphasis on the implementation, monitoring, and reporting of the management plan.

Table 3 below summarizes the roles and responsibilities of the stakeholders involved in the execution of this EWMP, including specific focus areas for each stakeholder:

Table 3: Roles and Responsibilities for the Implementation of the PLUS-D EWMP

Stakeholder	Roles and Responsibilities	Focus/ Coordination Remarks
PMO	• Provide overall oversight of EWMP implementation across Components 1 and 2 • Consolidate reports from AS-AMD, ROs, and schools • Monitor and evaluate compliance with the EWMP and E&S safeguards • Update/enhance EWMP to sustain its responsiveness • Submit periodic consolidated reports to oversight bodies (e.g., DepEd CO, WB) • Provide technical support and guidance to stakeholders on EWMP requirements	Provides strategic oversight and ensures coordination and timely information sharing across all implementing units.
AS-AMD	• Guide ROs on equipment standards and management	Focused on Component 1 deployment and guidance on equipment management.
	• Monitor equipment distribution and initial use • Support initial reporting to PMO	Coordinates closely with PMO and ROs for reporting and technical support.
DepEd ROs	• Supervise the decentralized procurement activities under Component 2 • Ensure schools implement EWMP provisions • Collect and consolidate reports from schools • Transmit regional reports to PMO • Provide continuous technical support to schools	Focused on Component 2 (Regional Grant Programs). Coordinates with schools for report consolidation and provides ongoing support.
Schools	• Maintain inventory of ICT equipment • Implement proper use and basic e-waste handling practices • Submit regular reports to ROs through the SDOs • Participate in end-of-life management activities at project closure	Involved in both Components 1 and 2 (SGP) Follow system-wide approach—equipment distributed through Component 1, locally managed under Component 2. Communicates with ROs for reporting.
Service Contractors	• Ensure alignment of interventions with the EWMP guidelines • Assist in providing any relevant training on the responsible use and disposal of ICT equipment	Engaged in both Components 1 and 2 interventions. Coordinates with implementing units to ensure proper training and compliance with standards.

IV. E-Waste Generation, Prevention, and Disposal

PLUS-D's deployment of ICT equipment will inevitably generate e-waste. This section discusses the sources and types of e-waste, measures to prevent or reduce waste generation, and procedures for its safe and proper disposal, in line with environmental regulations and sustainability practices.

A. E-Waste Generation

Waste electrical and electronic equipment (WEEE), or e-waste, is classified as hazardous waste (M506) under government regulations due to the presence of toxic substances such as lead, cadmium, and hexavalent chromium. These hazardous components, commonly found in electronic devices, have the potential to leach into the environment, contaminating land and water. Improper disposal of e-waste can lead to severe environmental and health risks, including the contamination of ecosystems and human exposure to harmful substances, which may result in serious conditions such as cancer and neurological disorders.

In recognition of these risks, DepEd acknowledges the importance of managing e-waste responsibly. The PLUS-D project will procure laptops to be distributed across public schools to enhance educational access and quality. As these devices reach the end of their useful life, they will inevitably generate e-waste, which includes defective batteries, broken screens, worn-out plastic casings, and obsolete internal components like hard drives and memory chips. Many of these components contain hazardous materials that can be harmful to both human health and the environment if not disposed of or recycled properly.

The primary sources of e-waste under PLUS-D project will be the laptops that are procured for use of teachers. These devices are expected to have an average lifespan of about five years, after which they will begin to generate waste as they become obsolete, damaged, or no longer functional. The generated e-waste will include various components such as batteries, screens, casings, and internal parts, all of which contain materials that can be harmful if not handled correctly.

Since the specific types, quantities, and specifications of the equipment are yet to be determined, the total number of e-waste generated cannot be precisely estimated at this stage. However, the project's scale will lead to a significant amount of e-waste over time. The number of devices procured, their lifespan, and the rate at which they are disposed of will determine the overall volume of e-waste. The disposal volume will be more accurately assessed once the procurement details are finalized. An estimated E-Waste Generation of the Project, attached as Annex 1, will provide further clarity on the projected volume.

B. E-Waste Prevention

To minimize the generation of electronic waste under the PLUS-D, several strategies will be explored and implemented. E-waste prevention aims to reduce the amount of electronic equipment that becomes waste, thereby decreasing environmental risks and promoting more sustainable management practices.

1. **Procurement Considerations**
   Consistent with the Green Public Procurement (GPP) Policy under the New Government Public Procurement Policy (RA 12009), procurement under the project shall consider relevant criteria and requirements on e-waste prevention. The following will be considered in the formulation of technical specification of goods and services to be procured under the project.

   a. Equipment rental schemes and warranty period extension
   These approaches help maximize the use of ICT equipment, delaying obsolescence and minimizing premature disposal.

   b. Trade-In and Return to Supplier Programs
   This allows users to return older models to the supplier in exchange for new or upgraded versions, and suppliers will be responsible for recycling, refurbishment, or disposal of returned devices.

2. **Sale to Employees**
For equipment that remains functional but is no longer needed for project purposes, an option for sale to employees may be considered, provided that the equipment is formally assigned (i.e., covered by a Property Acknowledgement Receipt (PAR) for items above 50K and Inventory Custodian Slip (ICS) for items below 49,999K to the individual employee. This approach extends the useful life of equipment while reducing waste.

4. **E-Waste Segregation Practices**
The project will implement strict e-waste segregation protocols to ensure that hazardous and non-hazardous electronic waste are properly separated. This prevents cross-contamination and facilitates the safe processing, recovery, and disposal of hazardous components in accordance of regulatory requirements.

C. E-Waste Disposal

Proper disposal of unserviceable ICT equipment is a critical component of the EWMP, ensuring compliance with government regulations and promoting environmental responsibility. In accordance with established DepEd procedures, all activities related to e-waste disposal must be conducted systematically, transparently, and accountably. This ensures that unserviceable property is properly assessed, documented, and disposed of, minimizing environmental impact and safeguarding institutional assets.

Following DepEd procedures on the disposal of unserviceable property, inspection is conducted to check the condition of the equipment to be disposed of. Once the supplies/equipment become unserviceable, the accountable officer of the said equipment shall immediately return the same to the Property Officer/AS-AMD for proper recording and inclusion in the items for discussion of the Disposal Committee. Accountable officers in possession of the unserviceable equipment shall submit the documents pertinent to the disposal of the unserviceable equipment to the Disposal Committee through their respective heads of offices. The COA Auditor shall be invited to inspect the items and determine whether the items are with or without value, and then forward his/her recommendation to the Head of the Agency.

- For expendable materials, supplies and consumables such as empty ink cartridges, busted lamps, batteries, spare parts, and other remnants from destroyed or damaged equipment, a Waste Materials Report shall be prepared by the Accountable officials for submission to the Disposal Committee thru the Asset Management Division (AMD).

- Once the approval for disposal of unserviceable equipment, empty ink cartridges, and parts have been inspected by COA Auditor and approved by the Disposal Committee, properties may be disposed of through any of the following modes, as approved by the Disposal Committee:

    a. **Condemnation/Destruction of Properties**: Valueless, unstable or hazardous properties may be condemned and destroyed by any method by which the properties are disposed beyond economic repair. Disposal of hazardous materials shall follow existing laws, rules and regulations, and standards on waste management, which may include segregation, decontamination and recycling.
    b. **Transfer of Properties to Another Government Property**: The properties subject to disposal may be transferred to another agency.
    c. **Donation**: Properties recommended for disposal may be donated to other agencies, non-government charitable, scientific, educational or cultural institutions/associations.
    d. **Sale to Government Officials/Employees of the Agency:** When a property is already for disposal, said property may be sold to the government official/employee to whom it is issued.

- The following shall be practiced:
    a. Appropriate storage area/facilities for electronic waste are to be provided in schools and DepEd division offices. E-waste collection area should be provided with weatherproof cover, impermeable surfaces to prevent transmission of liquids beyond the pavement surface, and with label or signage to identify the wastes contained in the area.

b. Disassembled or removed parts of usable parts of the electronic equipment prior to the condemnation/destruction of properties for disposal must be ensured by the Disposal Committee. Parts must be properly segregated and stored in spill-tight containers with impermeable surface and a sealed drainage system.

c. Provide instructions to teachers and students through the Deed of Donation regarding the safe disposal of used batteries and damaged equipment. Avoid breakage of these products and safely deposit at end-of-life at designated disposal bins located at DepEd school/division/region offices.

d. No burning, on-site burying or dumping of waste shall occur.

e. Adopt the following options for the final disposal of E-waste:

- Commission the services of DENR-registered hazardous waste transporters and treaters for the collection and disposal of E-waste that has been collected at the division/regional E-waste collection areas.
- Coordinate with a DENR-recognized non-government organization working on E- waste collection and disposal. The Division/Regional may enter into a Memorandum of Agreement (MOA) with the NGO for the safe collection and disposal of E-waste.
- Coordinate with the local government unit (LGU) with capability to handle hazardous wastes and E-wastes for the collection of E-wastes from DepEd Regional Office.
- Comply with the requirements of the DENR with regards to the registration and reporting of E-waste disposal.

The above procedures will be adopted by all governance levels from school/division and regional offices. The school and division level will oversee implementation of the above E-waste disposal measures. For clustered schools, the Account Officers who are assigned as Supply Officers will be in-charge of E-waste management and disposal process.

D. Other Related Wastes

Packaging waste generated during the delivery and unpacking of ICT equipment is classified as solid waste, which can often be reused or recycled. To ensure proper handling and minimize environmental impact, the following guidelines will be implemented:

1. **Immediate Clean-Up:** Schools, regions, and recipient teachers and students must conduct clean-up activities immediately after unpacking the equipment.

2. **Reuse and Recycling:** Recipients are encouraged to reuse or recycle packaging materials whenever possible or to coordinate disposal through local recycling centers.

3. **Waste Segregation:** Plastics and other non-biodegradable materials must be disposed of in designated segregation bins separate from other waste streams.

4. **Prohibition of Burning:** Burning of packaging waste is strictly prohibited to prevent air pollution and health hazards.

5. **Monitoring and Compliance:** Schools, divisions, and regions must ensure that recipient teachers and students properly manage packaging waste, as stipulated in the Deed of Donation accompanying the equipment.

V. E-Waste Management Infrastructure

An adequate e-waste management infrastructure is critical to ensuring the safe, efficient, and environmentally responsible handling of e-waste generated under PLUS-D. Adequate storage of e- waste is essential to minimize environmental and health risks. In line with the best practices and guidelines from the IFC/World Bank and DENR, PLUS-D will ensure that proper e-waste storage measures are followed throughout the project's lifecycle. Key protocols include:

1. **Assessing Existing E-Waste Management Infrastructure**
   A thorough assessment of the current e-waste management infrastructure in the project area will be conducted. This will involve evaluating the existing storage facilities, waste handling processes, and any available disposal systems to ensure that they are capable of handling the expected e-waste volume.

2. **Identifying Gaps and Proposing Improvements**
   Any deficiencies or gaps in the current infrastructure will be identified, particularly in terms of storage, segregation, and disposal systems. Measures will be proposed to address these gaps, such as upgrading storage facilities, implementing secondary containment systems, and improving inventory management systems.

3. **Designated Storage Areas**
   E-waste will be stored in secure, clearly labeled, and weather-protected areas. These areas will be isolated from general waste to prevent cross-contamination and will be compliant with RA 6969, which governs hazardous waste management in the Philippines. The storage areas will also adhere to other applicable environmental regulations.

4. **Appropriate Segregation and Storage Facilities**
   The e-waste storage facilities will be designed to ensure the proper segregation of hazardous and non-hazardous e-waste in compliance with RA 6969 and relevant environmental guidelines. These facilities will include clearly marked sections for different types of e-waste, such as batteries, screens, and circuit boards, to prevent any risks associated with mixing hazardous materials.

5. **Containment Measures**
   Storage areas will be equipped with impermeable flooring (e.g., concrete) to prevent leachate contamination. Secondary containment systems (e.g., trays or drums) will be used, and spill kits will be provided to address any potential accidents promptly.

6. **Labeling and Documentation**
   E-waste will be labeled with type, date, and other relevant handling information. An inventory system will track the volume and type of waste stored, ensuring proper documentation in line with regulatory requirements.

7. **Storage Duration Limits**
   E-waste will be stored in compliance with regulatory limits, typically 90 days, and transferred to licensed treatment, storage, and disposal (TSD) facilities in a timely manner. Special permits will be obtained if the storage duration exceeds these limits.

8. **Access Control and Safety**
   Storage areas will be restricted to authorized personnel, and safety protocols will include proper signage, PPE provisions, and basic handling training to minimize the risk of exposure to hazardous materials.

9. **Collaboration with Relevant Organizations**
   PLUS-D will collaborate with local and international organizations, government agencies, and stakeholders to ensure that adequate e-waste disposal facilities are available, and all infrastructure requirements are met. This includes ensuring that storage facilities meet DENR and IFC guidelines for hazardous waste.

VI. Energy-Efficiency and Sustainability Considerations

Energy-efficient practices are central to the PLUS-D, focusing on minimizing the environmental impact of ICT equipment and optimizing energy consumption to support sustainability.

1. **Energy-Efficient Equipment Procurement**
   Procurement under the project shall consider relevant criteria and requirements on energy efficiency and sustainable materials and practices consistent with the GPP Policy under the New Government Public Procurement Policy (RA 12009). The following will be considered in the formulation of technical specifications in procurement documents under the project.
   - **Priority for Energy-Efficient Models**: Prioritize energy-efficient ICT equipment, including devices with Energy Star certifications or equivalent standards.
   - **Energy Saving Features**: Specify power-saving features such as low-power modes, automatic power-off, and similar features.
   - **Sustainable Supply Chain**: Suppliers with energy-efficient manufacturing practices will be preferred to support the project's sustainability goals.

2. **Implementation Protocols for Energy Efficiency**
   - **Energy-Efficient Usage**: Schools will receive guidelines to encourage energy-efficient practices, such as turning off equipment when not in use and using power-saving modes.
   - **Promote Energy-Efficient Equipment**: Efforts will be made to prioritize and use energy-efficient equipment wherever possible to reduce overall energy consumption.
   - **Encourage Proper Maintenance**: Regular maintenance will be encouraged to extend the life of the equipment, ensuring it continues to perform efficiently over time.
   - **Energy-Efficient Infrastructure**: The project will ensure that energy-efficient power supply systems and lighting are integrated into ICT setups at schools.
   - **Monitoring and Tracking**: Energy consumption will be tracked regularly to assess and optimize the energy use of ICT equipment.

3. **Project Protocols**
   - **Power Management Settings**: All ICT devices will be set with power-saving defaults, such as automatic low-power modes or shut-off settings.
   - **Training**: Staff will be trained on energy-efficient practices, including proper use and maintenance of ICT equipment.
   - **Maintenance**: Routine checks will ensure that devices continue to operate with energy efficiency in mind.

VII. Awareness Raising (Socialization) and Dissemination of the E-Waste Management Plan

The E-Waste Management Plan (EWMP) is a document subject to public disclosure and consultation, consistent with the project's commitment to transparency and stakeholder engagement.

The EWMP is currently being prepared by the Project Management Service (PMS) and the AS-AMD who are coordinating closely to discuss e-waste management practices, procedures for the disposal of unserviceable ICT equipment, identification of responsible units for e-waste management, and potential environmental impacts and recommended mitigation measures.

As part of the awareness-raising activities, the EWMP will also be disseminated to relevant procurement offices and end users to ensure they understand their specific roles in implementing the plan. This includes guidance on compliance with waste management procedures and responsibilities for collecting and submitting necessary data for monitoring and reporting purposes.

Following these consultations and internal dissemination, the draft EWMP will be disclosed on the DepEd website for public comment. After securing a no-objection clearance from DepEd, the World Bank will also disclose the document. The final EWMP will be disclosed on both the DepEd and World Bank websites.

VIII. Monitoring and Reporting

To ensure the effective implementation of the EWMP under the PLUS-D Project, a robust Monitoring and Evaluation (M&E) system will be established to systematically track progress, assess outcomes, and ensure compliance with environmental and social safeguards. This system is designed to capture relevant data across implementing levels, support timely decision-making, and promote accountability. Clear monitoring parameters and reporting protocols are defined to guide all stakeholders in performing their roles and submitting timely, accurate reports. Table 4 below outlines the specific M&E responsibilities, expected outputs, and reporting timelines of each key stakeholder involved in the implementation of the EWMP.

Table 4: Roles, Outputs, and Reporting Timeline for M&E of the PLUS-D EWMP

Role	Output	Timeline for Report Generation
PMO	• Report on the estimation of e-waste generation under the project	• Procurement stage of the project
	• National consolidated M&E report on EWMP implementation and compliance • Assessment of environmental and social safeguards adherence to contracts of service providers	• Quarterly consolidated report will be included as a section in the PLUS-D progress reports • Ad hoc reports as needed
AS-AMD	• Deployment M&E report template • Guidance on M&E parameters and reporting protocols • Technical notes on environmental safeguards compliance, in coordination with DICT, DENR, and other relevant agencies	• Initial monitoring report within the first month • Quarterly M&E inputs

DepEd ROs	• Regional summaries of implementation progress • Reports on school-level e-waste handling practices • Documentation of safeguard compliance support	• Monthly school inputs • Quarterly regional report to PMO
Schools	• School-level reports on e-waste segregation, storage, and disposal • Compliance reports on local environmental protocols	Monthly reports to SDOs/ROs
Service Contractors	• Post-intervention reports (e.g., training, deployment, or technical support activity) • Observations on adherence to EWMP guidelines and safeguards	Within 15 working days after the completion of each training, deployment, or technical support activity.

IX. Grievance Redress Mechanism (GRM)

The procedure to file a grievance will be disseminated internally and externally. Internally, this procedure will be made known to all levels of DepEd that will be involved in PLUS-D and to contractors, to disseminate the details of the GRM to all project stakeholders. The Project GRM will set up designated contact points at all levels (school, SDO, RO, and CO) where all stakeholders, including teachers and learners, can freely express their concerns and complaints. The project shall build on DepEd's existing mechanisms as per DepEd Order No. 35 s. 2004 (Revision of the Grievance Machinery of the Department of Education), where mechanisms are put in place to allow grievances to be resolved at the school level.

The different ways in which stakeholders can submit their grievances are through the following: call (via existing DepEd PAAC hotline numbers), text messaging (via mobile numbers to be disseminated), e-mail, website for PLUS-D where they can lodge grievances, letter, grievance or suggestion boxes, and in-person. Complainants have the right to stay anonymous, especially involving sensitive issues.

Additionally, reports from LGUs, NGOs, findings from Missions, and media feedback may be submitted through the same channels or directly to designated DepEd offices for assessment and integration into GRM improvements.

Grievances can be submitted via the following channels:

- Telephone hotline: 8636-1663; 8633-1942; 8634-0222; 8638-8641; 8638-8641; 8638-7530; 8638-7529; 8638-7531; 8635-9817 operated by DepEd Central Office PAAC
- Short Message Service (SMS) to:

- 0919-456-0027 SMART
- 0995-921-8461 GLOBE
- E-mail to depedactioncenter@deped.gov.ph
- Letter to DepEd PMO
- In-person at a physical facility at schools, SDOs, ROs, and CO
- Grievance or suggestion boxes located at schools, SDOs, ROs, and CO
- Online form on the following website: www.deped.gov.ph/feedback

Communities and individuals who believe that they are adversely affected by a project supported by the World Bank may also submit complaints to the Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project-affected communities and individuals may submit their complaint to the Bank's independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred, or could occur, because of Bank's non-compliance with its policies and procedures, and the Dispute Resolution Service, which provides communities and borrowers with the opportunity to address complaints through dispute resolution. Complaints may be submitted to the AM at any time after concerns have been brought directly to the attention of Bank Management and after Management has been given an opportunity to respond. For information on how to submit complaints to the Bank's Grievance Redress Service (GRS), visit http://www.worldbank.org/GRS. For information on how to submit complaints to the Bank's Accountability Mechanism, visit https://accountability.worldbank.org.

X. Review and Update of the EWMP

The EWMP will be regularly reviewed and updated to ensure its continued relevance and effectiveness throughout the duration of the project. The review process will incorporate new regulations, emerging best practices, and lessons learned from the implementation phase.

The following actions will guide the review and update process:

- **Incorporation of New Regulations:** The EWMP will be updated to reflect any changes in national or local regulations related to e-waste management, ensuring compliance with legal requirements.
- **Adoption of Best Practices:** The plan will incorporate industry best practices for e-waste management as they evolve, ensuring the project remains aligned with current standards.
- **Lessons Learned:** Feedback and insights gained from project implementation, including monitoring results and stakeholder consultations, will be used to continuously improve e- waste management strategies.

The goal of these updates is to ensure the continuous improvement of e-waste management practices, addressing any challenges that arise, and optimizing processes to achieve sustainable outcomes. The updated version of the EWMP will be disclosed and communicated to all relevant stakeholders to ensure proper implementation and adherence to the revised practices.

XI. References

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XII. Annexes

Annex 1. Estimated E-Waste Generation of the Project

Name of Equipment	Number to be Procured	Typical Life Cycle	Project Component it is procured for