Republic of the Philippines
DEPARTMENT OF EDUCATION
Region 1
City of San Fernando, La Union 2500

MEMORANDUM

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TO: **SCHOOLS DIVISION SUPERINTENDENTS**

FROM: **THE OIC, OFFICE OF THE REGIONAL DIRECTOR**

SUBJECT: *The DepEd Computerization Program for 2020 under the Digital Rise of the Public Schools of the Future Framework*

DATE: **September 19, 2019**

Attached is an Aide Memoire from Usec. Alain Del B. Pascua, Office of the Undersecretary for Administration, Department of Education, Central Office, Pasig City dated September 11, 2019, for information, guidance and appropriate action.

TOLENTINO G. AQUINO

Incl.: As Stated

ORD-ICTU/SCL

Kagawaran ng Edukasyon

Tanggapan ng Pangalawang Kalihim

AIDE MEMOIRE
11 September 2019

THE DEPED COMPUTERIZATION PROGRAM FOR 2020
UNDER THE DIGITAL RISE OF THE
PUBLIC SCHOOLS OF THE FUTURE FRAMEWORK

The use of Information and Communications Technology (ICT) in the Department of Education (DepEd) is anchored on four major areas of the Digital Rise Program under the Public Schools of the Future Framework:

1) **Digital Literacy Skills** which are contained in the implementation of the K-12 curriculum, covering the following:

   a) Grades 4-6   : Productivity Tools
   b) Grade 7   : Basic Programming
   c) Grades 8-10   : Multimedia Skills
   d) Grades 11-12 : Vocational Skills and Open Source

2) **ICT-Assisted Teaching** where teachers will have access to e-learning resources that have been mapped out against the curriculum and can be used in classroom teaching;

3) **ICT-Assisted Learning** where learners will have feedback regarding the *competencies that they are weak in and the corresponding e-learning* resources that they need to review in order to better understand the concepts; and

4) **Automation of Organization Processes,** in particular Financial Management Reforms (FMR), that will allow DepEd to track the status of budget releases in real time as well as improve accounting systems, internal control, budget utilization, and delivery systems.

To support these undertakings, the Department of Education has initiated the **replacement of existing computer laboratories with mobile laboratories containing tablets and laptops that can be moved from one classroom to another.** This already started in 2019 DCP where computer desktops were no longer considered.

Previously, thin-clients and desktops were provided which required a dedicated classroom to be converted into a computer laboratory where computer classes would be conducted. Since 2019, the Department has moved into mobile laboratories containing laptops and tablet PCs that can be moved across different classrooms using storage carts. This scheme reduces the need of having a dedicated classroom that acts as the computer laboratory; allows the school to conduct computer classes even during power interruptions; and further allows the school to easily move the devices to safe locations during emergencies.

This change signifies the **leap from merely studying ICT as a subject, to fully utilizing its features and advantages as effective tools for both teaching and learning**.

This initiative is the core of **DCP 2020**, and it includes the following:

1) **E-Classroom and Multimedia Packages** which contain fixed and movable or portable technologies for the teachers to deliver Digital Literacy Skills and implement ICT-Assisted Teaching and for students for their ICT-Assisted Learning during regular classes;

2) **Centralized Connectivity Services** to ensure that all schools will be connected, cybersecurity protocols are standardized, and utilization of ICT equipment can be monitored by the Department;

3) **Open Educational Resources (OER)** initiative where more than 7,000 videos, 20,000 interactive activities, and 5.8 million articles are preloaded into the ICT equipment together with a Learning Management System (LMS) which can be accessed and used even without connectivity. In the near future, DepEd will release a system that will allow learners to take their quizzes and periodical exams in the LMS and automatically get feedback on areas they are weak in with the corresponding e-Learning resources that they need to review to better understand the concepts;

4) **Massive Capacity Building Program** that will enable teachers to fully maximize the use of ICT equipment and the digital literacy component of the curriculum using industry-standard proprietary applications, as well as the use of OERs in classroom teaching. Teachers will also be trained to develop localized e-Learning resources that will be more relevant to our learners; and

5) **Automation of Common Organizational Processes** through the DepEd Enterprise Resource Planning System (DERPS) that will cover the infrastructure, software, and change management services needed to implement an integrated system for Asset Management, Procurement, Payroll, and Human Resources. It will also include services to communicate with other systems being deployed by oversight agencies such as the Budget Treasury Management System (BTMS) which will automate financial transactions in government.

DCP 2020 requires a total of P8,994,499,000.00 budget, and has the following budget details:

1) **Multimedia Packages for Teachers** consisting of a laptop that the teacher will use to prepare lessons and develop localized e-learning resources, a TV for displaying visual aids, and a lapel microphone and speaker to amplify sound in the whole classroom. Multimedia Packages are intended to be used by all teachers in all subject areas by replacing paper-based visual aids with digital content.

      i. 39,134 packages (teachers)
      ii. P 2,348,040,000.00

2) **E-Classroom Packages for Learners** consisting of 1 Laptop for the teacher, a TV for displaying visual aids, 50 Tablet PCs or Laptops that learners will use for hands-on exercises, a wireless router to allow students to access e-learning resources in the teacher laptop, a printer for printing exercises, and two storage carts to enable classroom-to-classroom transfer and to safekeep the devices.

      i. 3,000 packages (schools)
      ii. P3,200,000,000.00

3) **Connectivity for Schools** that will be used to deliver new e-learning resources and access DepEd Systems through the DepEd Core Network and Wide Area Network.

      i. 15,000 sites (schools)
      ii. P1,020,000,000.00

4) **Infrastructure and Software** for the DepEd Enterprise Resource Planning System (DERPS) that will automate HR processes for non-teaching personnel, and licenses for proprietary software and cloud hosting services.

      i. P2,191,732,000.00

5) **Trainings, Operations and PS**

      i. P234,727,000.00

The **vision and direction beyond 2020** is to enable all classrooms to have Multimedia Packages, all teachers to have laptops and teaching equipment, all schools to have at least one E-Classroom Packages to support 6 sections, all sites (offices, schools· and centers) connected, and all governance processes are automated. This will, however, cost about P117,785,818,000.

The **vision and direction beyond 2020** is to enable all classrooms to have Multimedia Packages, all teachers to have laptops and teaching equipment, all schools to have at least one E-Classroom Packages to support 6 sections, all sites (offices, schools and centers) connected, and all governance processes are automated. This will, however, **cost about P118,683,106,000.**

There are currently 27,851 E-Classroom packages being used throughout the country to conduct computer classes to develop Digital Literacy Skills in our learners in addition to the 3,000 under 2020. Providing all of the 47,025 schools with the needed E-Classroom packages for every six sections would require an investment of P65,159,870,000.

There are presently 67,124 classrooms with televisions/projectors that support ICT Assisted Teaching in schools, on top of the 39,134 packages under 2020. Providing all of the 707,600 existing classrooms with televisions would require an additional investment of P 19,214,280,000.

There are also 27,851 laptops now being used by teachers to prepare their materials for classroom teaching, aside from the 39,134 units to be provided under 2020. Providing all the 857,465 teachers with laptops will require an additional investment of P24,888,420,000.

Connecting all other DepEd sites will still require P6,133,248,000. Under 2018 funds, the first 8,000 schools and offices are connected, and additional 15,000 schools will be connected under 2020.

Automating all governance processes will still need P2,390,000,000 more.

Training a teacher in each school who will in turn conduct learning action cell (LAC) sessions to their fellow teachers on ICT skills will require an additional P897,288,000.

All in all, a total of P118,683,106,000 is needed. **A three-year (2021-2023) plan of all these will require an annual allocation of about P40 billion.**

While the amounts are staggering, **the benefits of the Digital Rise Program will be a Big Leap of the Philippines towards Cyber Presence.** We can be assured that with proper combination of technology and education, the Filipino Youth will be future-ready to adequately address issues, concerns and problems that they have yet to face in the midst of the fourth industrial revolution.

ALAIN DEL B. PASCUA
Undersecretary