New Generation School
Year 8 Implementation
Mid-Year Report
(January - June 2023)

June 2023
Phnom Penh CAMBODIA

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
AFD	Agence Francaise de Development
BSD	Build Something Different
CAM	Cambodia Association of Mentors
CDDE	Center for Digital and Distance Education
CFS	Child Friendly School
CICME	Cambodia's International Conference on Mentoring Educators
CIES	Comparative International Education Society
CNI	Consonant Name Identification
CPD	Continuous Professional Development
CWPM	Correct Words Per Minute
DCD	Department of Curriculum Development
E2STEM	English|E-Learning|Science|Technology|Engineering|Mathematics
EGRA	Early Grade Reading Assessment
EMIS	Education Management Information System
FFF	Franks Family Foundation
FWR	Familiar Word Reading
GSED	General Secondary Education Department
HS	High School
ICT	Information and Communication Technology
IPM	Integrated Pest Management
KAPE	Kampuchea Action to Promote Education
LED	Lichtenstein Economic Development
LNI	Letter Name Identification
M.Ed	Master of Education
MoEF	Ministry of Economy and Finance
MoEYS	Ministry of Education, Youth, and Sport
NGPRC	New Generation Pedagogical Research Center
NGPS	New Generation Preschool
NGS	New Generation School
NIE	National Institute of Education
ORF	Oral Reading Fluency
PCR	Pupil Classroom Ratio
PED	Primary Education Department
PS	Primary School
PTR	Pupil Teacher Ratio
SBM	School-based Management
SRS	Secondary Resource School
STEM	Science Technology Engineering and Mathematics
TTI	Teacher Training Institute
TTO	Thontean Obrom
USE-SDP	Upper Secondary Education – Sector Development Program
VCESS	Vientiane City Education & Social Services Office
VNI	Vowel Name Identification
WPM	Words Per Minute

QUICK PROGRAM FACTS

Timeframe, Location, & Budget (All Sources)	
Start Date	January 2016
End Date	Open ended
Target Provinces Budget for Year 1 (2016) Budget for Year 2 (2017) Budget for Year 3 (2018) Budget for Year 4 (2019) Budget for Year 5 (2020) Budget for Year 6 (2021) Budget for Year 7 (2022) Budget for Year 8: (2023)	5 (Phnom Penh, Kampong Cham, Kandal, Kampong Speu, Svay Rieng) $ 1,218,000 (Secondary) $ 1,520,000 (Secondary) + $40,000 (Primary) = $1,560,000 $ 1,576,000 (Secondary) + $296,000 (Primary) = $1,872,000 $ 1,494,000 (Secondary) + $250,000 (Primary) + $163,000 (Tertiary) = $1,907,000 $ 1,494,000 (Secondary) + $250,000 (Primary) + $163,000 (Tertiary) = $1,907,000 $ 1,494,000 (Secondary) + $250,000 (Primary) + $163,000 (Tertiary) = $1,907,000 $ 1,417,000 (Secondary) + $263,000 (Primary) + $163,000 (Tertiary) = $1,843,000 $ 1,417,000 (Secondary) + $251,000 (Primary) + $170,000 (Tertiary) = $1,838,000
Unit Costs (Primary) (2023) Unit Costs (Secondary) (2023)	$130 $201
Beneficiaries	
Students Supported *Primary Level* *Secondary Level* *Tertiary Level*	 Boys: 1,322 Girls:1,130. Total: 2,452 Boys: 3,090 Girls: 3,580. Total: 6,670 25
Teachers Supported *Primary Level* *Secondary Level* *Tertiary Level*	 80 383 6
Other Staff Supported	
School Administrators Supported	57
Librarians Supported Counselors Supported School Nurses Supported Mentors Supported	*16* *7* *9* *33*
Schools Supported	
Primary Schools Assisted	4
Secondary Schools Assisted	6
Classes Supported *Primary Level* *Secondary Level*	 72 193
Efficiency Indicators	
PTR Level *Primary Level* *Secondary Level*	 30.7 17.4
PCR Level *Primary Level* *Secondary Level*	 34.1 34.6
Gender Parity Index (Enrollment) *Primary Level* *Secondary Level*	 0.85 1.16
Secondary School Dropout	1.3% (2022)

1. EXECUTIVE SUMMARY

General Overview: As the new academic year began in January 2023, the New Generation School System entered its eighth year of implementation. The New Generation School System has continued to strengthen its internal operations with a focus on several key areas including improved school-based financial management, school accreditation, and monitoring & evaluation. The NGS System also continues to provide an important platform to MoEYS to undertake new experimental initiatives (e.g., Gaming Technology Skills Accelerator, Coding, etc.) and develop cutting-edge training manuals on the latest 21st Century educational trends (e.g., Project Work, Flipped Classroom, Blended Learning, etc.).

Although funding levels for NGS have been frozen since 2018, total financial support from MoEYS over the last eight years reached $12.91 million this year with an additional $1.187 million from private foundations or approximately 9% of the total. Total funding from all sources for the New Generation School Initiative reached $14,097,000 this year. Non-state sector development partners continue to play a major role in NGS programming, particularly as this concerns the temporary credits provided to the NGS system during the long period at the beginning of the fiscal year when government funds are being processed.

An important development in 2023 relates to the decision of MoEYS to absorb into the state-funded NGS System three schools (one secondary and two primary) formerly supported by external donors (i.e., Child Fund Cambodia). These schools include Kok Pring HS and Svay Prahuot PS in Svay Rieng Province and the Primary Demonstration School in Kampong Cham Province. Unlike many government programs, NGS reforms are funded primarily through government tax revenues rather than through bi- or multi-lateral loans and grants, in which donor agendas and predilections often hinder freedom in design and implementation. This lack of donor interference may be one of the reasons why NGS Reforms have been so successful.

Key Developments During the Reporting Period: The present report provides an overview of 36 discrete activities and programming issues relating to scope and direction as well as a summary of key challenges. The following list of issues/activities provides a short summary of some of the key developments in the NGS System during the first half of 2023.

1. **Accelerating Sustainability, Increasing Parental Support, & Financial Accountability:** Parental contributions to New Generation Schools continued to break records. In 2022, contributions reached $1.6 million while in 2023 they have reached $1.8 million. The vast amount of parental resources pouring into New Generation Schools is a sign of high parental satisfaction and support as well as the need for more rigorous financial bookkeeping. The NGS Central Office is currently working on the development of a detailed financial manual to ensure proper accounting and transparency.

2. **Establishment of the Preah Sisovath Annex at Yukanthor HS:** As the E2STEM Project phases out at Yukanthor HS, MoEYS has decided to introduce New Generation School programming to the school in the form of an extension of Preah Sisovath HS, known as the Sisovath Annex. Students formerly enrolled in the *Online Plus Program* at Sisovath will now be able to study in a face-to-face environment at the new annex. The NGS Program at Yukanthor HS will utilize a brand-new building recently constructed by the Prime Minister's Office to house the annex.

3. **Peaking Enrollment:** The number of students enrolled in New Generation Schools continued to grow this year, mainly as a result of the expansion into Yukanthor HS. The total enrollment at secondary school level reached 6,679 students, up from 5,534 in 2022. Other schools have also been increasing their admission to new students as new rooms become available through new construction, demonstrating the high demand for NGS services from

the general public. When adding primary and secondary school enrollment together, total enrollment in the NGS System has broken the 9,000 mark and stands at 9,187, a new record.

4. **Accreditation Process:** Under the supervision of the National Oversight Board, the NGS Accreditation Subcommittee completed compliance visits to seven schools resulting in the annual accreditation of six of them while a seventh was placed on probation due to lapses in accountability. The school will be revisited at the end of the 3-month probation period to check whether compliance has been achieved while the remaining three schools in the NGS System will be visited in the next reporting period.

5. **Planning for Expansion:** The increasing magnitude of parental support to the NGS System has started to free up resources provided by MoEYS for operational costs. As a result, MoEYS and MoEF have agreed to fund an expansion into two new schools in the 2024 funding request, which will be reviewed by the two Ministries in August 2023. One of the new schools will be located in Siem Reap while a second site is currently under consideration in one of three provinces: Prey Veng, Kampot, and Kampong Thom.

6. **Completion of Project Work Manual:** During the reporting period, the NGS Team undertook a major new activity to produce a training manual focusing on Project Work Method. The manual essentially systematizes and documents the knowledge and practices in Project Work that have been generated by New Generation Schools over the last several years. The manual was completed in March 2023, translated into Khmer, and will be printed for national dissemination in August 2023.

7. **Gaming Technology Skills Accelerator Initiative:** KAPE has identified funding for a new initiative dealing with Gaming Technology, which is the fastest growing subsector in the ICT field. This initiative has been configured as a skills accelerator program to help MoEYS comply with expectations to accelerate the training of Cambodian youth to meet the challenges of the 21st Century economy. Under this initiative, KAPE has entered into a Public-Private Partnership with a Canadian firm called Apptessence to develop and pilot a cutting-edge curriculum designed to prepare secondary school students to work in a gaming environment. The pilot was successfully completed in June 2023, setting the stage for a round of revisions and re-piloting in the next school semester.

8. **Capacity Building Activities:** During the first six months of 2023, KAPE organized significant amounts of capacity-building for new teachers as well as refresher training workshops for existing teachers. This capacity-building took many forms including exposure visits (e.g., to Thailand), face-to-face workshops, and online training events. The workshops organized during the reporting period were quite diverse and ranged from STEM Education, Project Work (using the new manual), Using Mentoring Software (i.e., Observic), Techniques to Incorporate ICT in the Classroom, and Using AI (e.g., Robotify, BSD). Altogether, 62 days of workshops were organized involving 803 participants (mostly teachers, librarians, and administrators) during the period January to June 2023.

Challenges Encountered in Implementation: A number of key challenges have been identified during the reporting period that will require additional support and advice from the National Oversight Board. These challenges are summarized below:

1. **Challenges Arising from School Independence:** As New Generation Schools become more self-sufficient (as a result of expanded parental support) and increasingly more mature in terms of their administrative and technical capacity, there is an emergent risk that schools may start to stray from the guidelines laid out in the MoEYS' National New Generation School Policy.

2. **Short Shelf Life of Technology:** As investment cycles in many schools come to an end, the NGS System is noticing that much of the equipment procured during earlier cycles is

in need of replacement. This refers mainly to teacher laptops, tablets, and desktops (in computer labs). With the rapid evolution of technology, many devices become obsolete quickly and either require updating or replacement. Because technology plays such an important role in the modernization of New Generation Schools, there will be an on-going need for continuous investment to replace obsolete equipment.

3. **Financial Risks of External Income Streams:** The financial income of New Generation Schools has been steadily growing as more and more parents buy into the idea of funding high educational quality models that are transparent, rationalized, and well-governed (as well as cheaper than rien kua). In order to increase the capacity of schools to manage their funds more responsibly, the NGS Central Office has sought to create a more detailed set of accounting guidelines that will meet the current financial management needs of all schools.

4. **Status of the New Generation Pedagogical Research Center at NIE:** As the National Institute of Education moves forward with internal reforms and restructuring, the independent status of the New Generation Pedagogical Research Center has recently come into question. In the current organizational structure of the institute now approved by MoEYS, the NGPRC will no longer be an independent research center but rather a department within the institute. The designation of the center will be changed to 'New Generation Pedagogical Research Department.' By being absorbed into the NIE structure, many of the current freedoms enjoyed by the Center may be lost, thereby hobbling its independence and effectiveness. Thus, the status of the Center needs clarification.

5. **Official Status of Mentors and Dwindling Applicant Pools:** The NGPRC has recently reported a decline in the number of applicants who wish to become mentors. Over the last several years, the number of applicants has declined from over 150 (for 25 places) in the first year of Center operation to about 70 or less in more recent years. The Center is currently looking at a number of measures that may re-ignite interest in becoming a Mentor including official recognition and status for school-based mentors by the Personnel Department.

6. **The Importance of an Independent Accreditation System:** As existing New Generation Schools grow more mature in their operation and new schools are expected to enter the system starting in 2024, it is increasingly important for there to be in place an independent, well-resourced Accreditation Unit within the NGS System. The Accreditation Unit can then focus more fully on helping schools to adhere to NGS philosophies and tenets as well as orient new schools to accreditation criteria, as they start their investment cycles.

7. **Need to Address Exam-driven Learning That Undermines 21st Century Skills:** One of the main obstacles to improving education in Cambodia relates to the test- and textbook-driven nature of the teaching-learning process. Because teachers, students, and parents are so fixated on achieving good marks on standardized paper & pencil tests, there is little interest in using new teaching methodologies, ICT, or science lab facilities, since these things have little effect on helping students to pass standardized tests. New Generation School strategies have sought to wean schools away from the practice of using high-stakes examinations to assess student learning and have resolutely resisted pressure to introduce high-stakes testing into the School Accreditation process. However, there has been increasing pressure to accommodate test-driven approaches to school development within the NGS System, which may cause a diminution in educational quality and undermine the use of modern teaching methodologies.

8. **The Challenge of Maintaining Dynamism in the Face of Demands for Standardization:** Although many observers frequently focus on the material investments in a New Generation School as a defining characteristic, the core substance of a school's transformation into a high- quality educational institution is really more focused on changing the

'mindsets' of administrators, teachers, and students so that schools are in a constant state of dynamic change and innovation. Although the New Generation School development strategy is clearly to promote growth mindsets among stakeholders, there is nevertheless an undercurrent of sentiment that pushes against continuous change as per the behavioral norms commonly found in most public schools.

General Conclusions: The present academic year has been characterized by a number of key interrelated trends that indicate accelerating maturity and self-sufficiency among New Generation Schools. This maturity mainly manifests itself in the form of higher quality educational services and improved levels of governance. These improvements have been validated by a school accreditation process that is growing increasingly more important and rigorous. Official accreditation provides concrete evidence to parents that educational quality and governance is increasing, thereby justifying more financial support to schools from parents. As a result, schools are finding ever stronger financial support from parents leading them to a point of greater self-sufficiency. And as schools become more self-sufficient, they are also becoming less reliant on government funds, which is helping the program to free up funds that can be used for an expansion to more school sites.

Maker-spaces in NGS Libraries now play a major role for student research and collaboration.

2. BACKGROUND

2.1 Past & Future Trends in NGS Reforms

The New Generation School System is now in its eighth year of implementation. New Generation Schools refer to important reforms within the public education system that have created autonomous state schools with significant freedoms linked to the condition that they promote educational innovation. As the New Generation School system becomes more systematized, it is also providing an important platform to MoEYS to undertake new experimental initiatives (e.g., Gaming Technology Skills Accelerator, Coding, etc.) and develop cutting-edge training manuals on the latest 21st Century educational trends (e.g., Project Work, Flipped Classroom, Blended Learning, etc.). The establishment of New Generation Schools represents the culmination in educational reforms that accommodate a two-track development approach for the education system. Two-track development refers to high and low investment strategies to develop the education system that avoids a 'lowest common denominator' approach that is popular with so many donors. Such an approach reflects a conscious decision on the part of the Ministry of Education, Youth, and Sport (MoEYS) to make a long-term commitment to high investment in well-governed schools that will produce the high-quality human resources needed to turn the education system around in the long run. Such an approach mitigates the risks associated with donor investments in a 'minimum standard' for the rest of the country's schools, which often results in a 'race to the bottom' that inadvertently undermines human resource development (see Box 1).

New Generation School Reforms started in 2016 and currently comprise six secondary schools, four primary schools, and a tertiary institution, known as the *New Generation Pedagogical Research Center,* that trains teacher mentors (mostly for NGS placement) at the National Institute of Education in Phnom Penh. New Generation Schools are akin to 'charter schools' and operate as highly autonomous educational institutions within the public education system. The establishment of such schools is intended to promote educational reform and

> **Box 1: What is the Educational Race to the Bottom?**
>
> In educational contexts, a 'race to the bottom' refers to a strong focus on minimal standards of learning where product quality, in this case the learning of students, is sacrificed in order to meet minimum test standards mandated by a central authority. That is, reaching the minimum becomes the goal rather than seeking to achieve more than the minimum.

innovation. These ten New Generation Schools within the NGS System receive support both directly or indirectly from MoEYS as well as the Franks Family Foundation, Child Fund, and the Oak tree Foundation (though the last two have since phased out their assistance).

Although funding levels for NGS have been frozen since 2018, total financial support from MoEYS over the last eight years reached $12.91 million this year with an additional $1.187 million from private foundations or approximately 9% of the total. Total funding from all sources for the New Generation School Initiative reached $14,097,000 this year (see Table 2.1). Non-state sector development partners continue to play a major role in NGS programming, particularly as this concerns the temporary credits provided to the NGS system during the long period at the beginning of the fiscal year when government funds are being processed.

The New Generation School Initiative spent the period 2016-18 in an expansion mode, adding two or three schools to the system each year. Since that time, NGS reforms have been gearing up for an expansion with the decision in 2023 to absorb into the state-funded system three schools formerly supported by external donors. Unlike many government programs, NGS reforms are funded primarily through government tax revenues rather than through bi- and multilateral loans and grants, in which donor agendas and predilections often hinder freedom in design and implementation. This lack of donor interference may be one of the reasons why

NGS Reforms have been so successful.

Table 2.1: Investment in New Generation Schools at All Levels, 2015-23

Year	MoEYS	Franks Family Foundation	Child Fund Australia	Oaktree Foundation	Total	Schools & Institutions Receiving Investment
Secondary Schools						
2015	$374,000	--	--	$124,000	**$498,000**	**2**
2016	$355,000	$141,000	$150,000	$74,000	**$720,000**	**3**
2017	$1,270,000	$100,000	$150,000	$0	**$1,520,000**	**5**
2018	$1,417,000	$59,000	$100,000	$0	**$1,576,000**	**6**
2019	$1,417,000	$--[1]	$77,000	$0	**$1,494,000**	**6**
2020	$1,417,000	$--[2]	$77,000	$0	**$1,494,000**	**6**
2021	$1,417,000	$--[3]	$77,000	$0	**$1,494,000**	**6**
2022	$1,417,000	$--[4]	$0	$0	**$1,417,000**	**6**
2023	$1,417,000	$--[5]	$0	$0	**$1,417,000**	
Total	**$10,501,000**	**$300,000**	**$631,000**	**$198,000**	**$11,630,000**	**6**
Primary Schools						
2017	$40,000	--	--	--	**$40,000**	2
2018	$296,000	--	--	--	**$296,000**	2
2019	$250,000	--	--	--	**$250,000**	2
2020	$250,000	--	--	--	**$250,000**	2
2021	$250,000	--	--	--	**$250,000**	2
2022	$250,000	$13,000			**$263,000**	3
2023	$251,000	$0	--	--	**$251,000**	
Total	**$1,587,000**	**$13,000**	**--**	**--**	**$1,600,000**	**4***
New Generation Pedagogical Research Center-NIE (Higher Education)						
2019	$163,000	$15,000	$30,000	--	$208,000	1
2020	$163,000	$0	$0	--	$163,000	1
2021	$163,000	$0	$0	--	$163,000	1
2022	$163,000	$0	$0	--	$163,000	1
2023	$170,000	$0	$0	--	$170,000	1
Total	**$822,000**	**$15,000**	**$30,000**	**--**	**$867,000**	**1**
GRAND TOTAL	**$12,910,000**	**$328,000**	**$661,000**	**$198,000**	**$14,097,000**	**11**

*Includes one self-supporting primary school and one supported by FFF.

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[1] Does not include $272,000 interest-free loan to programming while government-funding was processed.

[2] Does not include $330,000 interest-free loan to programming while government-funding was processed.

[3] Does not include $365,000 interest-free loan to programming while government-funding was processed.

[4] Does not include $282,000 interest-free loan to programming while government-funding was processed.

[5] Does not include $238,000 interest-free loan to programming while government-funding was processed.

2.2 General Overview of Operations during the Period

Accelerating Sustainability, Increasing Parental Support, & Financial Accountability: Parental contributions to New Generation Schools continue to break records. In 2022, contributions reached $1.6 million while in 2023 they have reached $1.8 million. This is a huge number of resources that will enable schools to cover the recurrent costs of operating a New Generation School with minimal reliance on MoEYS. Of course, MoEYS will continue to provide some support to ensure that poor families can send their children to attend New Generation Schools without any need for payment. The vast amount of parental resources pouring into New Generation Schools is a sign of high parental satisfaction and support as well as the need for more rigorous financial bookkeeping. The NGS Central Office is currently working on the development of a detailed financial manual to ensure proper accounting and transparency.

Establishment of the Preah Sisovath Annex at Yukanthor HS: As the E2STEM Project phases out at Yukanthor HS, MoEYS has decided to introduce New Generation School programming to the school. NGS will be organized as a 'school in a school' model at Yukanthor HS and will be under the direct oversight of Preah Sisovath HS, which is one of the most experienced New Generation Schools in the NGS System. Students formerly enrolled in the *Online Plus Program* at Sisovath will now be able to study in a face-to-face environment. The NGS Program at Yukanthor HS will utilize a brand-new building recently constructed by the Prime Minister's Office; this new facility is now known as the Sisovath Annex. The ability of Sisovath to take on this management responsibility without direct financial support from the NGS Central Office is a testament to the growing capacity of the Ministry to manage New Generation Schools on its own.

The Sisovath Annex: *A new and modern structure was donated to Yukanthor HS by the Prime Minister's Office to house the NGS expansion into the school.*

Peaking Enrollment: The number of students enrolled in New Generation Schools continued to grow this year, mainly as a result of the expansion into Yukanthor HS, which is under the management control of Preah Sisovath HS. Approximately 600 students were able to gain entry to the NGS System through this expansion, bringing the total number of secondary school students enrolled in the system to 6,679, up from 5,534 in 2022. Other schools have also been increasing their admission to new students as new rooms become available through new construction, demonstrating the high demand for NGS services from the general public. When adding primary and secondary school enrollment together, total enrollment in the NGS System has broken the 9,000 mark and stands at 9,187, a new record.

Planning for Expansion: As noted earlier, the increasing magnitude of parental support to the NGS System has started to free up resources provided by MoEYS for operational costs. As a result, the NGS Central Office has included a request in its 2024 budget to add two more New Generation Schools to the system within the existing budget. One school in Siem Reap Province is currently under consideration as well as one site in three other provinces (Kampot, Prey Veng, and Kampong Thom). Initial surveys at one school in Siem Reap have indicated that there is strong community support for this expansion and a critical mass of teachers who are willing to join the program. Pending negotiations with the Ministry of Economy and Finance

(MoEF), it is hoped that the NGS System will finally begin a long-awaited expansion into new schools.

Formal Absorption of Three More Schools into the New Generation School System: Although the number of schools in the NGS System has always been reported as 10, three of these schools were formerly supported from other sources of funding (e.g., Child Fund). Now that Child Fund has completed its investment cycle with hand over to the government, MoEYS has decided to shift current funding to support these three schools (one of which was supported only through local funds). Absorbing these three schools into the NGS System has been made possible as a result of increasing parental support to other schools, which has freed up enough funds to enable government support without increasing the existing budget. As a result, all 10 schools in the NGS System are now all under the direct supervision of MoEYS.

Completion of Project Work Manual: During the reporting period, the NGS Team undertook a major new activity to produce a training manual focusing on Project Work Method. The manual essentially systematizes and documents the knowledge and practices in Project Work that have been generated by New Generation Schools over the last several years. The manual was completed in March 2023, translated into Khmer, and printed for national dissemination in July 2023. The development of this manual was requested by the Minister himself to help MoEYS increase the capacity of normal schools to practice Project Work Methodology. Because the manual has a user-friendly layout with discrete session plans for trainers and course materials for workshop participants, any trainer with a decent education background should be able to use the manual to train teachers in his/her province, district, or school. A Project Work Manual Launch Event is planned to take place in August 2023 to kick off Ministry efforts to promote project work in more schools. The completion of this manual demonstrates how NGS programming can have beneficial knock-on effects to the general education system as well as New Generation Schools.

Gaming Technology Skills Accelerator Initiative: KAPE has identified funding for a new initiative dealing with Gaming Technology, which is the fastest growing subsector in the ICT field. This initiative has been configured as a skills accelerator program to help MoEYS comply with expectations to accelerate the training of Cambodian youth to meet the challenges of the 21st Century economy. Under this initiative, KAPE has entered into a Public-Private Partnership with a Canadian firm called Apptessence to develop and pilot a cutting-edge curriculum designed to prepare secondary school students to work in a gaming environment. The pilot was successfully completed in June 2023, setting the stage for a round of revisions and re-piloting in the next school semester. KAPE is currently negotiating with Lichtenstein Economic Development (LED) to try to acquire funding for an expansion of this initiative to more New Generation Schools in 2024.

New Gaming Technology Development Lab: *Students at Preah Sisovath HS participate in a new pilot to learn gaming technology skills that will help them work in one of the fastest growing ICT subsectors.*

3. KEY ACCOMPLISHMENTS & ACTIVITIES DURING THE PERIOD

System-wide Activities

3.1 Update on Programming Scope

Enrollment in the NGS System increased this year to 9,187 students at the start of the 2023 academic year across both the primary and secondary school sectors (see Table 3.1). This compares with 7,970 students last year. *Unit costs have also continued to decline, dropping from $256/student last year to $201 this year for secondary level; primary school unit costs have also declined from $156/student to $130.* The decline in unit costs has been driven mainly by increasing enrollment demand, the completion of infrastructure upgrading at older New Generation Schools, and most importantly by the shift in financial support to parents in accredited schools. With a planned expansion to two more schools in 2024 and the growth of the Sisovath Annex at Yukanthor HS, the NGS System expects to see a continuation in enrollment growth for NGS educational services. Analyses of Pupil Class Ratios and Pupil Teacher Ratios also indicate that most schools are maintaining accreditation standards to keep PCR and PTR levels below a level of 36:1 to ensure that large class sizes do not dilute educational quality. In this respect, the overall PCR and PTR level at secondary school level are 34:1 and 14:1, respectively; while for primary school level they are a respectable 34:1 and 22:1, respectively.

Table 3.1: Enrollment, Investment Sources, & Historical Background across all New Generation Schools (2023)

Province	School Name	Enroll-ment (2023)	No. of Classes	Teachers	Investment Source	Establishment Date	NGS Develop-ment Model
Secondary School Level							
Phnom Penh	Preah Sisovath HS	1,732[6]	52	122	MoEYS-FFF	Oct 2015	School in a School
	Prek Leap HS	1,292	36	93	MoEYS-FFF	Oct 2017	Whole School
Kampong Cham	Hun Sen Kampong Cham HS	636	16	41	MoEYS-FFF	Oct 2015	New School/ Dying School
	Peam Chikorng HS	1,258	38	85	MoEYS-FFF	Oct 2018	Whole School
Kandal	Prek Anchanh HS	1,253	36	86	MoEYS-FFF	Oct 2017	Whole School
Svay Rieng	Kok Pring HS	508	15	40	Child Fund-FFF	June 2015	Whole School
Subtotal	**6 schools**	**6,679**	**193**	**467**	**3 Sources**	**--**	**3 Models**
Unit Costs/ PCR/PTR	Unit Cost: $201 per student		34:1	14:1	--	--	--
Primary School Level							
Kampong Cham	Demonstration School	489	15	21	Self-sup-porting	Oct 2015	New School/ Dying School
	Angkor Ban PS	354	12	22	MoEYS	Oct 2017	Whole School
Kampong Speu	Akhea Mahasei PS	1,269	36	54	MoEYS	Oct 2017	Whole School
Svay Rieng	Svay Prahuot PS	396	11	19	Child Fund	June 2015	Whole School
Subtotal	**4 Schools**	**2,508**	**74**	**116**	**3 Sources**	**--**	**2 Models**
Unit Costs/ PCR/PTR	Unit Cost: $130 per student		**34:1**	**22:1**	--	--	--
Grand To-tal	**10 Schools**	**9,187**	**267**	**583**	**--**	**--**	**--**
Unit Costs/ PCR/PTR for All	**Unit Cost: $182 per student**		**34:1**	**16:1**	**--**	**--**	**--**

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[6] Includes students enrolled at Yukanthor HS.

3.2 Entrance Examination Results

The rate of admission at New Generation Schools increased somewhat from 63% in 2022 to 65% in 2023 (see Table 3.2). Admission rates increased at secondary school (from 60% to 65%) while decreasing at primary school level (82% to 70%). Among secondary schools, Prek Leap HS surpassed Preah Sisovath HS with the most restrictive admission rate (59%) while Peam Chikong HS (83%) had the least restrictive admission rate. Rural schools like Angkor Ban (Kampong Cham) and Svay Prahuot (Svay Rieng) continued to do normal admission with no testing requirements at Grade 1, as we can say that children at this level tend to be a blank slate. Urban primary schools continued to administer admission tests and require that children first attended preschool as an admission requirement. Demand at urban primary New Generation Schools continues to be very high with many more children applying than there are available seats. Across all schools, there were 3,143 applicants for only 2,242 available seats, indicating that demand for NGS services continues to exceed demand.

Table 3.2: Test Results among Students Applying for Entry to New Generation Schools, 2023

Name of School	Total Seats Available	Applicants Tested	Total Passing	Total Applications Accepted	Students Accepted as a % Applicants
Secondary Level					
Hun Sen Kg. Cham HS*	--	--	--	--	--
Preah Sisovath HS	562	935	418	562	60%
Prek Leap HS	367	601	381	353	59%
Prek Anchanh HS	337	517	316	337	65%
Kok Pring HS	168	198	139	135	68%
H.S Peam Chikorng HS	473	404	293	336	83%
Subtotal	*1,907*	*2,655*	*1,547*	*1,723*	*65%*
Primary Level					
Demonstration School	69	153	69	69	45%
Akhea Mahasei PS	266	335	266	272	81%
Angkor Ban PS**	--	--	--	--	--
Svay Prahuot PS**	--	--	--	--	--
Subtotal	*335*	*488*	*335*	*341*	*70%*
GRAND TOTAL	2,242	3,143	1,882	2,064	65%

*Hun Sen Kampong Cham HS has closed external Grade 7 admissions to accommodate children enrolled in the adjacent primary school (Demonstration School); **Admission at Grade 1 at these rural schools is not subject to an Entrance Exam.

3.3 Accreditation Results for 2023

Accreditation visits to New Generation Schools are becoming an increasingly frequent occurrence as all schools have now completed their investment cycles and are eligible for accreditation reviews. These reviews are necessary for a school to keep its New Generation School status and enjoy all the benefits afforded to such schools under MoEYS' NGS Policy Framework. This includes the right to solicit admission fees from parents and pay incentives to teachers. During the reporting period, the Accreditation Team visited seven schools. As noted in previous reports, schools must achieve 100% of Absolute Performance Criteria (of which there are 12) and at least 50% of Preferred Performance Criteria (of which there are also 12). Based on a report from the Accreditation Team, which is comprised of both MoEYS and KAPE staff, six schools achieved full accreditation while a seventh (Peam Chikong HS) was placed on a 3-month

probation due to lapses in financial record keeping, which is considered an Absolute Performance Criterion necessary for accreditation (see Table 3.3). The Accreditation Team has given the school three months to clean up its books at which time it will receive a second visit. Three other schools will also receive their accreditation visits during the next six months. A final Accreditation Report was submitted to the National Oversight Board and MoEYS in June 2023.

Table 3.3: Summary of Accreditation Results in 2023

School	Province	Provisional Score Based on Performance Criteria	Accreditation Status	Next Steps
1. Preah Sisovath HS	Phnom Penh	22/24 (92%)	Achieved	Prepare for 2024
2. Prek Leap HS	Phnom Penh	23/24 (96%)	Achieved	Prepare for 2024
3. Hun Sen Kg Cham HS	Kampong Cham	23/24 (96%)	Achieved	Prepare for 2024
4. Hun Sen Peam Chikong HS	Kampong Cham	18/24 (75%)*	3-month Probation	Revisit School at end of Probation Period
5. Prek Anchanh HS	Kandal	22/24 (92%)	Achieved	Prepare for 2024
6. Kok Pring HS	Svay Rieng	23/24 (96%)	Achieved	Prepare for 2024
7. Svay Prahuout PS	Svay Rieng	21/22 (95%)	Achieved	Prepare for 2024
8. Anuwat PS	Kampong Cham	--	--	Waiting for Accreditation Visit
9. Akhea Mahasei PS	Kampong Speu	--	--	Waiting for Accreditation Visit
10. Angkor Ban PS	Kampong Cham	--	--	Waiting for Accreditation Visit
Schools Accredited	**--**		**6 Achieved**	**--**

*One Absolute Criterion not achieved.

3.4 Capacity-Building Events during the Reporting Period

During the first six months of 2023, KAPE organized significant amounts of capacity-building for new teachers as well as refresher training workshops for existing teachers. This capacity-building took many forms including exposure visits (e.g., to Thailand), face-to-face workshops, and online training events. All capacity-building events have now trended back to face-to-face formats, which also tend to be more effective. The workshops organized during the reporting period were quite diverse and ranged from STEM Education, Project Work (using the new manual), Using Mentoring Software (i.e., Observic), Techniques to Incorporate ICT in the Classroom, and Using AI (e.g., Robotify, BSD). Some of the workshops provided were organized directly by KAPE while others have consisted of collaborations with other organizations such as *Arduino* (an electronics company specializing in Robotics), and *MangoSTEEMS* (a software company that is helping KAPE to integrate robotics, artificial intelligence, and coding into the NGS curricular program). These kinds of workshops demonstrate the value of New Generation Schools as a platform to help MoEYS actually implement 21st Century learning that the Cambodian education system desperately

Promoting Modernity in Teaching: *STEM Education Workshop for New Teachers (above); Teachers learn how to use Mentoring Software (below).* ↗

11

needs. Altogether, 62 days of workshops were organized involving 803 participants (mostly teachers, librarians, and administrators) during the period January to June 2023 (see Table 3.4).

Table 3.4: Summary of Capacity Building Workshops and Events (Jan-June 2023)

Name of Workshop or Capacity-building Event	Primary Level	Secondary Level	Online	Face to Face	Number of Participants	Number of Days
Jan to June 2023						
1. Observic Training		1		1	350	1
2. BSD Orientation to ICT Teacher				1	15	1
3. Robitify Orientation to ICT Teacher				1	10	1
4. Hands-on Science Workshop	1	1		1	50	2
5. Canva[7] Software Training/Integrating ICT in the Classroom		1		1	47	1
6. Question Bank Review Training		1		1	60	1
7. Project Based Learning Training		1		1	45	1
8. Digital Literacy training	1	1		1	21	2
9. M-Learning Training (Librarians)	1	1		1	25	2
10. School Website Training	1	1		1	27	1
11. Early Warning System (EWS) School Management System	1	1		1	90	2
12. Advanced Arduino Training Phase II	1	1	1		38	45
13. STEM Education Training		1		1	25	2
Total	**6**	**10**	**1**	**11**	**803**	**62**

3.5 Update on NGS Publications

The New Generation School System continued to play the role of a research development institute for the MoEYS by adding to cutting-edge training and policy documentation available for general use in the education system. During the reporting period, NGS technical personnel developed a seminal training manual on *Project Work Methodology* as well as a policy document that outlines preferred general practices on student assessment (see Section 3.14). The development of the Project Work Manual was undertaken as a direct request by the Minister of Education, Youth, and Sport to systematize the NGS approach to using Project-based Methodologies (of which there are several) in a way so that the document can be used in general education schools. The document is highly user-friendly and consists of easy-to-use session plans for trainers as well as course materials for distribution to participants. This is a milestone document that will help MoEYS set the stage for a transition to 21st Century educational practice. Another new document developed during the reporting period refers to a *Student Assessment Policy* document that lays out the need for diverse practices of student assessment besides paper and pencil tests; the dangers of teaching to the test and the use of high-stakes

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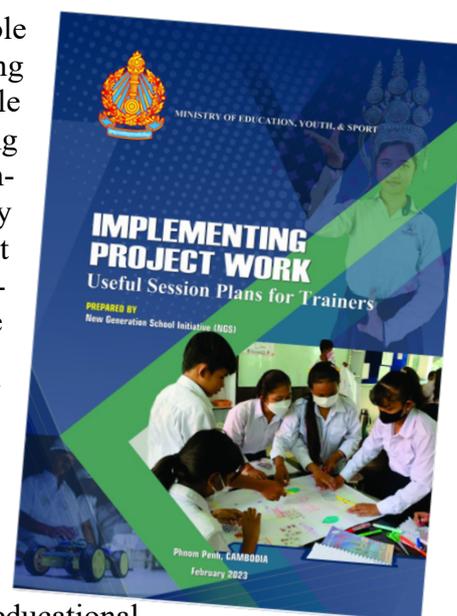
[7] Canva is a free graphic design platform that's great for making multi-media presentations, posters, websites, and more. A drag and drop interface makes customizing thousands of templates simple and easy. Canva's wide array of features allow you to edit photos without extensive photo editing knowledge or experience.

examinations; and best practices in student assessment. This document is very timely, as there is an increasingly acrimonious controversy about the overuse of high-stakes, standardized tests to enforce learning standards in some educational development projects versus the use of more diverse evaluation techniques that focus on student project portfolios, task-based assessments, and formative evaluation.

3.6 Parental Financing Developments and Support for Poor Students

One of the controversial aspects of New Generation School programming is the negotiated support of parents to schools following a three-year period of investment (in which there are no fees) followed by accreditation. While some donors criticize this practice because they feel that education should be totally 'free', this attitude overlooks the observation that even in Western countries public schools are supported by taxpayer funding. Beyond this point, public schools in Cambodia that are ostensibly 'free' are actually riddled with unofficial fees and payments that far exceed the one-time annual fees charged by accredited New Generation Schools. Such annual fees usually range from as low as $50/student per year in rural areas such as Angkor Ban PS to $330/student at Preah Sisovath HS (see Table 3.5). New Generation Schools offer a much more rationalized payment system where parental support flows into school coffers rather than the pockets of individuals where it usually disappears. The parental funds that schools receive, currently registering $1.6 million, are actually allocated to support school services and can be easily monitored for purposes of transparency. Most middle-class parents indicate that the rationalized payment system offered by New Generation Schools is actually cheaper than paying the unofficial fees in ostensibly 'free' public schools. It is also cheaper than private schools and in many cases offers a higher standard of education. Safeguards are also in place so that qualifying students from poor families do not have to pay any fees based on a means-test. Overall, about 14% of the students enrolled in New Generation Schools attend for free with this percentage reaching as high as 27% in certain schools. Thus, there are clear provisions in place to ensure social equity and inclusion in each New Generation School.

Table 3.5: Summary of Payment Basis & Revenues from Parents (End of 2022 to be used in 2023)

School Name	Student Enroll- ment	Annual Fee	$ Total	Students Paying	Paying Students as a %	Scholar- ship
1. Preah Sisowath HS	1,730	330	$538,494	1,632	94%	6%
Preah Sisowath Online HS*	55	600	$30,600	51	93%	7%
2. Prek Leap HS	1,292	260	$293,202	1128	87%	13%
3. Chea Sim Prek Anchan HS	1,253	250	$279,900	1120	89%	11%
4. Hun Sen Kampong Cham HS	636	150	$83,985	560	88%	12%
5. Hun Sen Peam Chikorng HS	1,258	150	$147,135	981	78%	22%
6. Kork Pring HS	508	65	$30,615	471	93%	7%
7. Anuwath Hun Sen PS	489	100	$42,700	427	87%	13%
8. Angkor Ban PS	354	50	$13,550	271	77%	23%
9. Preareach Akkak Ma- hasei PS	1,269	150	$138,015	920	73%	27%
10. Svay Prahuot PS	396	65	$22,815	351	89%	11%
Total/Average	9,240	157	$1,621,011	7,911	86%	14%

*This service has been discontinued with students transitioning to face-to-face enrollment at Yukanthor HS instead.

3.7 School Financial System Re-organization

As all New Generation Schools reach the end of their investment cycles and negotiate parental support to cover recurrent operating costs, there has been an overwhelmingly positive response from communities resulting in a windfall of about $1.6 million across all schools, as noted earlier (see Table 3.6). Of course, some communities are better endowed than others and can provide funds to schools that well exceed the target of 70% coverage of operating costs. The remaining 30% of operating costs will be made up from government funds, mainly to provide a cushion for those households that cannot afford to pay an annual fee, currently about 14% of students (see Section 3.6 above). According to data received from schools, about 50% of schools have achieved or exceeded the funding target (i.e., 70% of operating costs) to sustain the operating costs of a New Generation School (see Table 3.6). Given the huge quantity of funds that are now flowing into New Generation School coffers, there is an urgent need to put in place a more systematized set of financial regulations that will ensure transparent manage-ment of all transactions, as expected under the governance requirements of a New Generation School. In order to develop systematic rules of financial management of funding from all sources, the New Generation School Central Office has hired a Financial Management Con-sultant to develop a set of regulations that all schools will be expected to follow. This Financial Management Policy will be completed in July 2023 and will be followed by training of all school administrators and accountants in August-September. These new regulations should help the New Generation School System to avoid financial scandals and ensure that parents can trust schools to be scrupulous in their management of the funds received.

Table 3.6: School Operating Costs and Projected Income at the End of 2023

School Name	Local Support (Est.)	Total Operat-ing Costs	% of Costs Locally Sustained
Secondary Level			
Preah Sisovath HS*	$559,000	$660,553	85%
Hun Sen Kg Cham HS	$83,900	$172,508	49%
Prek Leap HS*	$286,000	$314,550	91%
Prek Anchanh HS*	$276,000	$231,967	119%
Peam Chikong HS	$147,000	$229,742	64%
Kok Pring HS	$30,000	$61,620	49%
Subtotal	**$1,381,900**	**$1,670,940**	**83%**
Primary Level			
Demonstration School*	$42,000	$35,000	120%
Akhea Mahasei PS*	$135,000	$123,553	109%
Angkor Ban PS	$13,500	$46,594	29%
Svay Brahuot PS	$22,800	$43,200	55%
Subtotal	**$213,300**	**$244,347**	**87%**
Total	**$1,595,000**	**$1,904,287**	**84%**

*Schools that have achieved or exceeded the funding target of 70% or more for sustained operation.

3.8 Rationalization of the School Investment Planning Process

An issue related to the rapid increase in community funding of all New Generation Schools relates to the process through which schools plan and program the funds at their disposal. Dur-ing the three-year government investment cycle, most planning and programming decisions (especially those relating to capital expenditures and teacher incentives) were made by the New Generation School Central Office. Only about $10,000 to $20,000 was entrusted to schools for purposes of discretionary spending (e.g., School Improvement Planning). Now that schools have shifted their reliance from government to community funding for most expenditures and with the rapid increase in available funds at their disposal, the New Generation School Office has had to move quickly to accelerate capacity-building efforts of all schools so that they can

plan and program ALL funds in a rationalized manner with the school's best interests in mind. For example, it has been necessary to provide clear guidelines governing how quickly and under what circumstances incentive payments to teachers and administrators can be increased (see **Annex 1**). In this respect, all such increases must first be reviewed and approved by the National Oversight Board and cannot be introduced unilaterally by schools. Such protocols align with the accountability provisions in the New Generation School National Policy. Similarly, schools have been trained to adhere to guidelines that ensure a balance between capital, personnel, and general administrative expenditures. All this guidance takes the form of rationalized annual budget documents that provide the center point for the financial management regulations in the Financial Policy document described in Section 3.7 above.

3.9 Progress on NGS Building Renovations for 2023

With the arrival of government funds in May 2023, the NGS Central Office moved quickly to implement planned investments in infrastructure. Altogether, investments are being undertaken in 23 educational facilities as well as landscaping (see Table 3.7). Some of the largest investments undertaken this year relate to the emplacement of multi-purpose auditoriums in Akhea Mahasei PS and Kok Pring HS. Community funding has supplemented these investments, which cost between $20,000 and $30,000 each. These facilities provide comfortable, wired halls with permanent seating. With the completion of these investments, all schools will have in place modern meeting halls except for Angkor Ban PS. The program is also making major investments in Canteen facilities at both Prek Anchanh HS in Kandal and Peam Chikong HS in Kampong Cham Province.

The program has also undertaken a number of renovations to key facilities that were built at the start of the program and have become somewhat rundown through high rates of student utilization. In this respect, the ground-breaking library at Preah Sisovath HS received a major

Renovations and New Construction Underway: *A new auditorium at Kok Pring HS in Svay Rieng nears completion (above); Renovations at the Preah Sisovath HS Library will help bring the library up to par with improvements at other newer libraries in the NGS System (below).* ⬈

facelift during the reporting period, bringing the facility back to its former glory. Similar renovations are also underway at Kok Pring HS in Svay Rieng. These and other renovations should be completed by September 2023.

Table 3.7: Summary of On-going Renovations in Infrastructure in 2023

School Name	Non-science Classrooms	Science Labs	ICT Labs	Offices	Library	Bathroom	Wall painting (m2)	Clinic	Auditorium	Canteen	Landscape (m2)	Total
1. Preah Sisovath HS			1		1*		1,684					2
2. Hun Sen Kampong Cham HS	1**										1,597	1
3. Prek Leap HS												
4. Prek Anchanh HS										1		1
5. Peam Chikong HS										1		1
6. Kok Pring HS	5	6	1						1			13
7. Angkor Ban PS												
8. Akhea Mahasei PS	1								1			2
9. Demonstration School (Kg Cham)												
10. Svay Prahout PS	3											3
Total	**10**	**6**	**2**		**1**				**2**	**2**		**23**

*Renovations; **Life Skills Room

3.10 New Generation School Retreat Meeting

On 10-11 July 2023, the NGS Team held an retreat meeting in Kampot Province to reflect on key issues in program implementation. This two-day retreat was attended by all technical staff working in the program as well as the KAPE Finance Team and associated consultants to help guide the process of improved financial management in schools. Several of the key topics discussed during the retreat included the topics that are summarized in Box 2. This retreat provided a good opportunity for everyone to reflect on problems and challenges, rethink current strategies, and modify future programming accordingly.

Box 2: Summary of Discussion Topics during Internal NGS Program Retreat in Kampot

1. ***Overview of Achievements to Date and Current Challenges:*** Discussion on positive outcomes and prioritizing the most serious problems.
2. ***Reflecting on a philosophy of Freedom in Structure:*** How can we ensure that the freedom afforded to New Generation Schools does not result in faulty programming?
3. ***Strengthening Financial Management in Schools:*** This topic afforded time for participants to better understand the financial issues facing the NGS System as parents rapidly increase their financial support. The Financial Management Consultant was able to provide a report on her findings and next steps for capacity-building.
4. ***Status Report from the Accreditation Unit:*** The Accreditation Unit shared the latest findings of the Accreditation Team and on-going problems at Angkor Ban PS and Peam Chikong HS.
5. ***Status Report from New Generation Pedagogical Research Center:*** The Center reviewed planning for the next intake and posting of current graduates. Expansion needs were brought into focus during these discussions as NGPRC will need to provide over 100 mentors for planned expansion.
6. ***Strengthening the M&E within the Program:*** The program is planning to create an automated dashboard that will automatically generate data for users without having to request data from the M&E section. A Terms of Reference for a planned consultancy has been completed and approved. A consultant will be hired for this purpose in 2024 and the system should become operable by mid-2024.

3.11 Planned Expansion of NGS Programming

The increasing magnitude of parental support to the NGS System described above has started to free up budgetary resources provided by MoEYS for implementation and recurrent costs. As

a result, the NGS Central Office has included a request in its 2024 budget to add two more New Generation Schools to the system within the existing budget. The addition of these schools would bring the total number of New Generation Schools up to 13 if one includes the expansion that has already occurred at Yukanthor HS (which technically is considered part of Preah Sisovath HS). In addition, it should be noted that the Asian Development Bank will also be supporting investment in an additional eight schools under the new CamStepUp Project starting in 2024-25. In terms of the expansion planned by the NGS Central Office, two schools in Siem Reap Province were under consideration including Wat Svay HS (in Krong Siem Reap) and Aranhreangsei Jr. HS (in Bakhong District). Unfortunately, teachers at Wat Svay HS rejected NGS investment leaving only Aranhreangsei Jr. HS on board. Additional sites in Kampong Thom, Prey Veng, and Kampot are now under consideration for a second site. Pending negotiations with the Ministry of Economy and Finance (MoEF), it is hoped that the NGS System will finally begin a long-awaited expansion into new schools starting in January 2024.

3.12 Planning for International Conference on Autonomous Schools

An important milestone event is being planned by the NGS Program in the form of an international conference on Autonomous Schools. The goals of the conference are summarized in Box 3. Mainly, the conference hopes to bring together like-minded educators throughout Southeast Asia who are trying to promote educational reform in their respective countries by supporting autonomous school initiatives. The NGS program itself was based on a prototype observed in Thailand (i.e., Lamplaimat Patana School) as far back as 2007 and other similar initiatives are also under way in Lao PDR and possibly Bangladesh. The conference will bring over 100 researchers and practitioners together along with a number of development partners and government to share ideas and build a permanent secretariat that will be responsible for networking and future cooperation. The conference will be held at the Sokha Hotel in Phnom Penh on 28-29 September 2023 and will feature H.E. Dr. Hang Chuon Naron, Minister of Education, Youth, and Sport as the keynote speaker. Over 15 presentations and panel discussions are planned during the two-day conference, which will culminate in a series of recommendations for the establishment of a permanent secretariat to bring the various initiatives occurring throughout the Southeast Asia Region together. The conference is being funded by both MoEYS and KAPE as well as a number of New Generation Schools in Cambodia and Child Fund Cambodia.

> **Box 3: Goals of the International Conference on Autonomous Schools**
> 1. Create a better-informed and networked international constituency that can effectively advocate for educational reforms involving Autonomous Schools.
> 2. Document innovative thinking on a variety of topics that relate to Autonomous Schools through an annual publication linked to the New Generation Pedagogical Research Center.
> 3. Create a permanent Autonomous Schools Secretariat based in Cambodia that will advocate for autonomous school reforms.

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NGS INTERNATIONAL

International Conference on Autonomous Schools as a Key to Education Reform:
Planning for a New Generation of Schools for Southeast Asia & Beyond

Sponsored by:
- **Ministry of Education, Youth, & Sport (Cambodia)**
- **Kampuchea Action to Promote Education**
- **Child Fund Cambodia**
- **New Generation Pedagogical Research Ctr.**
- **Prek Leap New Generation School**
- **Hun Sen Kampong Cham New Generation School**
- **Prek Anchanh New Generation School**
- **Preah Sisovath New Generation School**
- **Peam Chikong New Generation School**

Conference Goals
1. Create a better-informed and networked international constituency that can effectively advocate for educational reforms involving Autonomous Schools.
2. Document innovative thinking on a variety of topics that relate to Autonomous Schools through an annual publication linked to the New Generation Pedagogical Research Center.
3. Create a permanent Autonomous Schools Secretariat based in Cambodia that will advocate for autonomous school reforms.

Conference Overview:
This international conference seeks to bring attention to global efforts to establish autonomous public schools as a key strategy through which to promote educational reforms focused on improved educational quality in the Southeast Asia Region and beyond. The conference will in particular focus on specific exemplars of autonomous schools such as *New Generation Schools,* which are now being expanded in two countries in the region (Cambodia, where it began, and Lao PDR). Similar exemplars of autonomous schools will also be showcased such as *World Class Schools* in Thailand, Charter Schools in the United States, Academies in the UK, etc.

Conference Registration & Participation:
- **Online Participation is free.**
- **On-site Participation is $30/person and includes lunch and refreshments.**
- **Link for Registration:**
  https://forms.gle/RCHWf8JLpGLTn67V9 or scan QR Code
- **For Conference Information, contact:**
  Mr. Phann Bunnath (KAPE)
  (p.bunnath@kapekh.org)
  Dr. Sun Somara (NGPRC)
  (somara@kapekh.org)

3.13 Update on Learning Management Systems

With the start of the new school year in January 2023, the NGS Central Office was able to ensure that five New Generation Schools were able to adopt the use of Learning Management Systems (LMS) in their respective schools. Those that are not yet using LMS are using a simpler platform called Early Warning System (EWS). The LMS platform is provided by *Cambodia Mobile* and ranges in cost from between $6 to $12 per student per year depending on the scope of the services provided. Schools have chosen service packages based

> **Box 4: What Is a Learning Management System?**
>
> A learning management system is a software app for the administration, documentation, tracking, and delivery of educational courses, training programs, or learning development programs.

on their available resources. Essentially, the LMS provides a systematic connection between the school and parents whereby the latter can track the attendance of their children, their academic progress, and direct access to the school for informational and news purposes (see Box 4). A tutorial on the LMS used in the New Generation School System can be found at the following link: http://www.youtube.com/embed/xSIrBJnbvdI?autoplay=1.

3.14 Development of Student Assessment Policy for NGS

One of the publications developed by the NGS Team relates to a concise policy statement for New Generation Schools as they plan for student evaluation (see also **Section 3.5** above). There are currently many controversial issues that are being debated in the Cambodian education system as this relates to student evaluation. This includes the merits of high-stakes paper and pencil tests, washback effects on teacher practice, the need for student portfolios and many other important issues for which there is little official guidance. Given this backdrop, the NGS Central Office developed a policy document that seeks to provide guidance to schools in the NGS System on how they should approach student evaluation. The new policy document includes several sections that cover the following content areas:

- Philosophies and Principles of Student Assessment
- Recommended Assessment Practices
- Linkages between Assessment Policy and Other Key Policies
- Roles and Responsibilities of School Stakeholders in Implementing the Assessment Policy

The Minister of Education, Youth, and Sport has expressed interest in this policy document developed for the NGS System and presented it at International Reading Day festivities earlier in 2023.

3.15 Exposure Visit to Thailand

As a result of Covid19, exposure visits to Thailand were suspended for two years. With the end of the pandemic, the NGS Program has recommenced these exposure visits as an important means to broaden the horizons and understanding of New Generation School teachers by exposing them to new educational practices in other countries. Using KAPE's extensive network
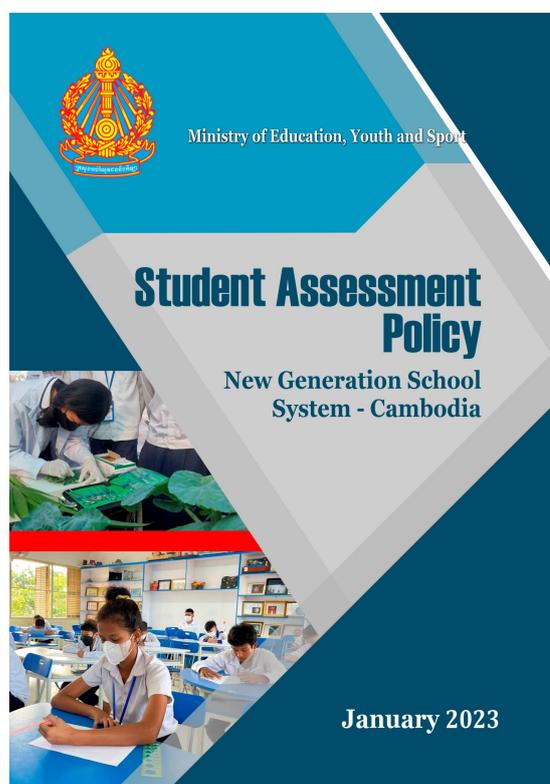
with educators in Thailand, the NGS Central Office was able to organize a study visit in June 2023 to three schools in Thailand, each of which is high-performing school but with very different approaches to how they achieve high outcomes. The schools visited included:

- ***Lamplaimat Pathana:*** A famous independent school (with state support) in a rural setting that forbids competition but rather uses cooperation at all levels as the basis for improved student learning.
- ***Chulaphorn Science High School:*** This school is one of a network of schools that has patronage from the Thai Royal Family. Its approach is the total opposite of Lamplaimat Pathana School with a strong focus on high-powered learning in a very competitive environment.
- ***Nong Bua High School:*** A high-performing public school in a poor semi-urban area. This school achieves high results through its strong leadership where there is a strong bond between administrators and teachers.

The organization of the study tour in the way described above sought to demonstrate to teachers that there is more than one possible strategy to build a wonderful learning environment at one's school. This philosophy gets to the heart of what makes a New Generation School. That is, MoEYS seeks to promote independent thinking and innovation at public schools by providing autonomy with accountability (i.e., Freedom in Structure); however, there is no standardized formula for creating a 'good' school. Each school is expected to find its own way based on the desires and preferences of administrators, teachers, students, and communities.

There were 90 Cambodian educators (including 51 teachers) and community members who participated in the study tour from six New Generation Schools and one affiliated school in Phmom Penh that seeks to become a New Generation School (i.e., Santor Muk HS) (see Table 3.8). During the visit, Prek Leap and Peam Chikong HS signed MoUs with several Thai schools to continue the dialogue started during the exposure visit.

Table 3.8: Participation in Exposure Visits to Thailand, 2023

| Position	Kampong Cham			Phnom Penh		Svay Rieng		Total
	Hun Sen Kampong Cham HS	**Hun Sen Peam Chikorng HS**	**Anuvat PS**	**Prek Leap HS**	**Santor Muk HS***	**Kok Pring HS**	**Svay Brahuot PS**	**Total**
School Administrators	4	6	1	3	2	2	2	20
Teachers	10	10	3	19	--	6	3	51
Community Members	--	--	--	6	4	--	--	10
POE/DOE	2			5		2		9
Total	**36**			**39**		**15**		**90**

*Not a New Generation School

Collaborating with Thai Educators: *Teachers from Prek Leap work with Ajarn Wichian Chaiybang, a famed Thai educator at Lamplaimat Pathana School, during a learning game (left); Khmer and Thai educators pose together at Nong Bua HS in Buriram Province (right).*

3.16 Expansion of Coding Pilot to All Schools

As per a request from the Minister of Education, Youth, and Sport, the NGS System has sought to focus on introducing 21st Century curriculum content into the public education system. One important pilot that started in 2022 to achieve this refers to the partnership between a software company called MangoSTEEMS and the NGS System. MangoSTEEMS has agreed to discount software licenses to the program so that licenses for both *Robotify* (a coding program) and *Build Something Different* (an AI-based software program) together are about $25/student. An explanation about each licensed program is provided in Box 5. Based on a successful pilot that occurred at Hun Sen Kampong Cham HS and the Demonstration School, the program has decided to roll-out this cutting-edge curriculum program to nine New Generation Schools, focusing on Grades 5, 6, and 7. MangoSTEEMS has continued to maintain its very deep discount to Cambodian public schools so that the roll-out was able to start quickly. Altogether, 1,130 primary and secondary school students will benefit from this program (see Table 3.9).

Table 3.9: Students Enrolled in BSD and Robotics by School, 2023

Schools	Robotify		Build Something Different (BSD)
	Grade Level (Number of Students)		
	5	*6*	*7*
Secondary Level			
Preah Sisovath HS*	--	--	180
Hun Sen Kg Cham HS*	--	--	108
Prek Leap HS*	--	--	144
Prek Anchanh HS*	--	--	108
Peam Chikong HS	--	--	108
Kok Pring HS*	--	--	108
Subtotal	--	--	756
Primary Level			
Demonstration School*	72	72	--
Akhea Mahasei PS	144	--	--
Angkor Ban PS	--	--	--
Svay Brahuot PS*	48	48	--
Subtotal	264	110	--
Grand Total	**1,130**		
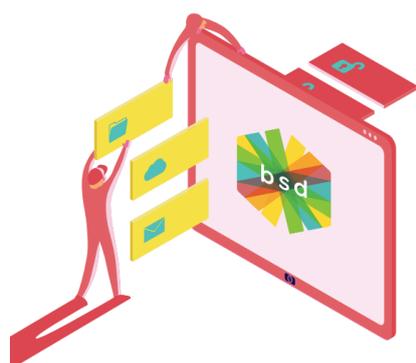
Box 5: What are *Robotify* & *Build Something Different?*

Robotify: This is an innovative platform for teaching coding using web-based, 3D robot simulations. The software allows children to choose drones, submarines, space robots, and other attractive technologies as the backdrop for their coding exercises. The program offers 100+ hours of coding and robotics courses. https://www.robotify.com/

Build Something Different (BSD): This software focuses on being able to integrate real-world, project-based technology curriculum into all subject areas so that every student, no matter their interest, can develop the skills required for the future. The curriculum is divided into engaging, easy-to-follow modules that enable students to do such things as build a data collection app to gather live data from a soccer game to study in statistics or build a website about the history of ancient civilizations. The BSD curriculum is also mapped to US, IB, and British academic standards and can be implemented immediately with no prior experience – 76% of teachers using BSD have no prior technology experience so that teacher training is very easy to implement. https://app.bsd.education/

3.17 National Board Meeting at Prek Leap HS

On 9 May 2023, the National Oversight Board, led by H.E. Lao Chao Vanna, organized a quarterly meeting at Prek Leap HS (Phnom Penh) to review the achievements, challenges, and future planning for NGS programming. The meeting was attended by various representatives of various departments who are permanent members of the Board as well as KAPE and school representatives. The Board provided guidance to the program and schools relating to expansion, consolidation, and in particular the growing amount of funding that schools are now receiving from parents. The Board advised the program to take rigorous action to tighten financial oversight of schools and develop guidelines for incentive increases, which are both reasonable and based on clear criteria (see **Annex 1**). The Board recognized that things are changing quickly in NGS sites and committed to organizing a comprehensive fact-finding visit to all New Generation Schools during the current academic year.

3.18 New Collaborations, Partnerships, & Networking

The New Generation School System continued to reach out to other partners (see Box 6). Through the recent Gaming Technology Skills Accelerator Initiative, NGS has reached out to a number of private schools who are interested in starting a closer collaboration with New Generation Schools in Phnom Penh. Private schools may also buy into the Gaming Technology classes in the near future as well. Private schools with whom NGS representatives have met include:

- East-West International School (already signed MoU with Sisovath HS)
- Asia Pacific International School
- True Vision School

The Gaming Technology Initiative has also made great inroads in terms of reaching out to private companies that may be able to play a role in the expansion of the new Gaming Curriculum. This includes Radical Motion based in the UK, CG Spectrum, which is a top-ranked online Game Design, VFX, & Animation school delivering the best education from award-winning industry artists, as well as EPIC, a US-based video game and software developer to whom NGS has submitted a grant request for $80,000. In collaboration with CDDE, the New Generation School System has also reached out to Lichtenstein Economic Development (LED), as a new partner who is interested in promoting skill accelerator initiatives such as Gaming Technology (see

> **Box 6: New & On-going Partnerships**
>
> - ***East-West International School*** (Pedagogical Exchanges)
> - ***HEAD Foundation*** (STEM Education)
> - ***Apptessence*** (Gaming Technology)
> - ***Radical Motion*** (Gaming Technology Software)
> - ***CG Spectrum*** (Gaming Technology Course Materials)
> - ***EPIC*** (Gaming Technology Grant Request)
> - ***LED*** (Gaming Technology Grant Request)
> - ***MangoSTEEMS*** (Coding Curriculum)
> - ***InSTEDD*** (Coding Curriculum)
> - ***Arduino:*** (Electronics Club)
> - ***Meta*** (ICT Curriculum Enhancement)
> - ***Tonthean Obrom:*** Learning Aid and Book Production

Section 3.21). It is hoped that LED will approve a grant request of about $90,000 to roll-out the Gaming Technology Initiative in 2024.

At the same time, the New Generation School System has maintained on-going partnerships with other groups such as the HEAD Foundation in Singapore (for STEM Education), Apptessence (for Gaming Technology), MangoSTEEMS (for coding and AI), Arduino Electronics (for electronic clubs), and Meta (for ICT curriculum enhancement). See Box 6

* * * * * * * * * * * * * *

Students at Prek Leap HS put library research stations to good use as they work on class projects.

NGS Secondary School Level

3.19 Increasing Access to Preah Sisovath HS through Yukanthor Annex

As the E2STEM program at Yukanthor HS starts to phase out, MoEYS has decided to move NGS programming into the school to ensure that recent infrastructure investments by the Prime Minister's Office are fully utilized. This refers to a huge 6-story building recently completed on the Yukanthor Campus. The MoEYS has tasked the management team at NGS Sisovath HS to lead this effort, demonstrating the capacity that the program has built among government staff over the last several years. The MoEYS has decided to designate the expansion of NGS into Yukanthor HS as a Sisovath Annex so that the program will be under the oversight of the Sisovath Management Team. This solves a problem of resistance to the program among some teachers and administrators at the school. This expansion into Yukanthor essentially adds an 11th school to the NGS System though nominally the annex is actually an extension of Preah Sisovath HS. The creation of the Annex solves a major problem for Preah Sisovath New Generation School as demand for seats at the school exceeds supply by a large margin each year, even though there are many qualified students who want to get into the school. With the availability of the annex, over 500 students applying for entry to the school could now be accommodated, which enabled a major increase in the rate of admission.

Classes at the Sisovath-Yukanthor Annex get under way in 2023.

3.20 Introducing Secondary Schools to the National Aspirations Contest

New Generation Secondary Schools are keen supporters of the *Aspirations Contest,* which is a national event organized by MoEYS to promote innovative thinking among Cambodian youth (see Box 7). During the reporting period, representatives of the Center for Digital and Distance Education (CDDE) started visiting New Generation Schools to inspire students to participate in the National Aspirations Contest. The purpose of the contest is to motivate Cambodian youth to think about what innovations they can develop that will improve the lives of others in society. In keeping with NGS ideals, the contest encourages creativity, critical thinking, independent thought, and innovation. All six NGS Secondary School directors have made a concerted effort to expose their students to the spirit of the contest (e.g., https://fb.watch/myWz2LyPj0/) and will support their efforts to enroll in the contest with resources, guidance, and encouragement.

> **Box 7: Goals of the Aspirations Program**
>
> **1.** To enhance student learning with new learning methods such as collaborative learning, critical learning, problem-solving and project-based learning.
>
> **2.** To support students to achieve the highest level of enlightenment, which can be obtained from each lesson in the national curriculum by creating a project.
>
> **3.** To encourage sharing, discussion, improvement and citing experiences among students of the project results they have created.

3.21 Gaming Technology Development Skills Accelerator Initiative

At the beginning of 2023, the NGS Central Office initiated a large investment in the development of Gaming Technology Curricular Programs. Gaming Technology is both a part of ICT,

and a distinct subsector in and of itself. While coding faces turbulence from the introduction of AI that may affect students' future job prospects, 'gaming' is growing at twice the rate of ICT, generating more job demand, and seems more immune to these AI concerns. In December 2022, NGS hired a consultant working with a Canadian educational technology firm called Apptessence. The consultant has now developed the first phase of a curriculum, using modern tech education approaches. The result has been a curriculum focused on practical skills that directly relate to needs in the 3D game development pipeline. The present initiative focuses particularly on 'motion capture,' and a UK startup (Radical Motion) has helped to sponsor the program with complete access to their AI-driven motion capture service. Currently, six students at Sisovath HS are midway through the first run of the course, which culminates in recreating traditional Cambodian dance,[8] based on the collaboration with one of the country's most notable Apsara masters (cf. https://undigestedmatter.substack.com/p/finally-complete-almost?sd=pf). This new cutting-edge curriculum will eventually be spread to all New Generation Schools, but the program is considering market testing the curriculum to the private sector, as a revenue generator that will support the public program.

So far, NGS has already invested $25,000 of program funds for curriculum development, equipment, and a permanent facility at Sisovath HS (see image below). This pilot activity has covered a great deal of ground in just six months, and this has attracted the interest and help from one of the world's biggest suppliers of training in this area (CG Spectrum), who are ready to supply supporting material from their own courses for NGS use. This program is so far extremely well networked in the private sector with evolving partnerships with CG Spectrum, Radical Motion, and EPIC from whom NGS has requested an $80,000 grant, which is still pending. The Center for Digital and Distance Education (CDDE) has also joined the initiative and is

Cutting-edge Gaming Technology Lab: *NGS has set up a state-of-the-art Gaming Technology Lab at Sisovath HS, which will hopefully contribute to MoEYS' efforts to support skill accelerator initiatives that develop the Cambodian economy.*

providing an additional $10,000 in funding until a full grant of $90,000 comes through from Lichtenstein Economic Development (LED), which seems very interested in supporting this initiative into next year.

A design image of the Gaming Technology Lab at Preah Sisovath HS that opened officially on 8 May 2023. The lab has multiple functions both as a classroom and studio.

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[8] NGS chose traditional dance for the pilot to demonstrate the breadth and versatility of gaming technology in terms of its practical applications. Similar applications involving simulations, visualization, and pre-visualization can be imagined for multiple fields such as architecture, engineering, bio-sciences, the entertainment industry, and many others.

3.22 Collaboration with USE-SDP2

The NGS System continued to collaborate with the ADB-supported Upper Secondary Education -Sector Development Project 2 in multiple areas. This included the development of a manual on M-learning (that was recently used to support NGS librarians, see below), teacher mentoring, the revision of the Constructivist Learning Manual to include a section on computational learning, and the establishment of student clubs. In particular, advisers in KAPE have been helping to support the piloting of mentor placements in Secondary Resource Schools (SRS) as a prelude to a new ADB project (CamStepUp) that will start rolling out in 2024. Although the mentoring pilot identified many important problems/factors that muted the effectiveness of mentors (e.g., lack of offices, lack of support from school directors, etc.), the findings of the pilot assessment have been documented and should prove highly useful for planned efforts to place mentors in all SRS's under CamStepUp.[9] The two programs have also been collaborating on the provision of technical support to the Practice Schools at the National Institute of Education. In this respect, the schools have been re-designed using many of the configurations pioneered under New Generation Schools. Using the New Generation Pedagogical Research Center (NGPRC) as a channel for technical support, NGS Advisers have also been providing guidance and support in setting up Smart Classrooms, promoting ICT in education, and reaching out to parents to solicit their increased support for the school, particularly the primary school where cooperation has been much closer.

3.23 Developments in Library Operation

There have been numerous capacity-building activities to support library operation in the New Generation School System. For example, a two-day workshop on M-learning was provided to all librarians in June 2023 using a manual developed by KAPE in collaboration with MoEYS/USE-SDP2 (see above). The manual provides current views and guidelines on how libraries should manage mobile devices to maximize their impact on student learning. This includes modes of storage and access, inventorying and organization, account organization, and useful educational applications that promote learning. This workshop was attended by 25 persons across the NGS Library System with appropriate follow-up in progress. This training workshop was the first time that the M-Learning Training Manual has been used in a workshop.

In addition to capacity-building activities, the library section in NGS has also been working with schools to edit and publish the most outstanding examples of student scholarship that have been compiled by Creative Writing Clubs across all schools. After being edited by program staff, the best books have been sent to *Thontean Obrom (TTO)*, a private sector social enterprise partner, for printing and distribution. A total of 147 titles from seven schools have been selected by the program for printing (see Box 8). These titles can be found in **Annex 3** of this report. After printing, school libraries
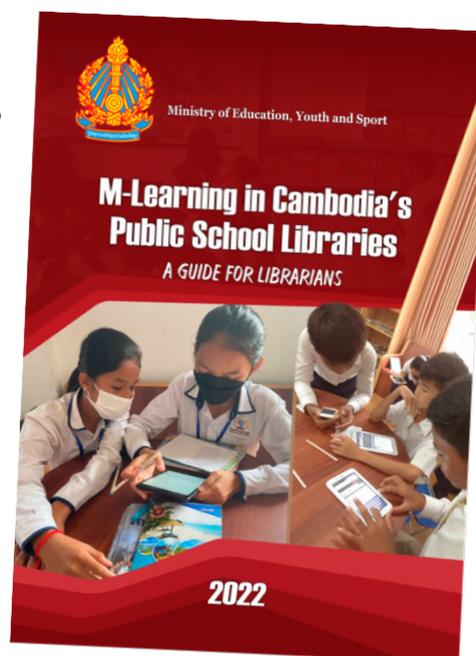
Box 8: Student Authored Books Ready for Printing and Distribution to Libraries

School	Number of Titles Received
Preah Sisovath HS	36
Prek Leap HS	37
Peam Chikong HS	27
Prek Anchanh HS	20
Hun Sen Kampong HS	19
Kok Pring	5
Akhea Mahasei PS	3
Total	**147**

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9 https://drive.google.com/file/d/1-7KDyfZJcelpfOM81ZLgWXA15D6IZtUj/view?usp=sharing

will use their school grant funds to make procurements of books that will be placed in school libraries for other students to read. Special reading sections in each library are being organized to showcase student scholarship. The placement of student literature in school libraries is an excellent means through which to inspire other students to be good writers and dare to be the author of a novel or expository document.

M-learning Workshop presentation at Prek Leap HS Auditorium for all NGS Librarians. ➚

3.24 MoU Agreements with Universities

New Generation Secondary Schools have accelerated their efforts to reach out to tertiary institutions both in and outside of Cambodia to provide post-secondary learning opportunities to their students. Many universities have been making presentations at New Generation Secondary Schools to inform students of their academic programs, admission requirements, tuition, scholarship opportunities, and other important information to help them make informed decisions about their postgraduate planning. Many schools are signing Memoranda of Understanding with tertiary institutions to lock in special consideration for their students (such as scholarships). Altogether, eight universities have signed MoUs with New Generation Secondary Schools over the last several years (see Table 3.10). These initiatives to form direct contacts with tertiary institutions demonstrate the independence and innovation of New Generation Schools.

MoU Signing Ceremony between Hun Sen Kampong Cham HS and CamTech University.

Table 3.10: Number of Universities That Have Signed MoUs with New Generation Schools

Secondary School	Universities that Have Signed MoUs	Number of Institutions
1. Preah Sisovath HS	• Jung Won University (JWU) • KMUTT, SoA+D • Cambodia Academy of Digital technology • Aceleda Business Institute • Travinh University • East Asia Management University • Cam Tech University • The University of Wisconsin Green-Bay	8
2. Prek Leap HS	• Aceleda Business Institute • Cam Tech University • East Asia Management University	3
3. Hun Sen Kampong Cham HS	• Cam Tech University • East Asia Management University • University of Management & Economy	3
4. Peam Chikong HS	• Aceleda Business Institute • Cam Tech University	3

Secondary School	Universities that Have Signed MoUs	Number of Institutions
	• East Asia Management University	
5. Prek Anchanh HS	• Cam Tech University • East Asia Management University	2
6. Kok Pring HS	• N/A	0
Total Number of Universities with MoUs with NGS Schools		**8 Institutions**

3.25 Arduino Electronics Programming Phase II

Following on last year's efforts, the New Generation School System continues to partner with Arduino Electronics to promote 21st Century knowledge skills. Accordingly, Phase II of the Arduino initiative started in 2023. Arduino provides an open-source electronics platform based on easy-to-use hardware and software. Arduino boards are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output such as activating a motor, turning on an LED, or publishing something online among many other options. Because the Arduino platform helps to link electronics hardware with what students are learning in their coding classes, it is a perfect match for the NGS curricular program in ICT. Arduino provides easy-to-use kits for schools to use as the building blocks for innovative student projects. The kits walk students through the basics of Arduino and electronics in a hands-on way. No prior experience is required, as the kit introduces both coding and electronics through fun, engaging, and hands-on projects. The Arduino Kits are incredibly effective tools for students who want to learn about the real-world robot world, as well as learn how to develop electronics based on certain self-written programs. In a recent capacity-building workshop to launch Phase II programming, 38 teachers volunteered to learn how to use the Arduino Kits. These teachers will help to provide guidance to Student Electronics Clubs throughout the NGS System. The clubs in turn will play an important role in the development of student projects on a range of technological issues in upcoming project fairs.

← *Cutting-edge Learning in Electronics & Coding: Students at a New Generation School use an Arduino Electronics Kit to learn how to interface the use of electronics and coding, which will provide them with the basic skills needed to create their own projects. The Arduino Electronic Kits are a perfect tool through which to promote Constructivist Learning by supporting collaborative learning and self-directed projects that stimulate creative thinking.*

3.26 STEM Education Conference Organized with HEAD Foundation & CDDE

One of the key collaborations that was organized in 2022-23 concerns the NGS Partnership with the HEAD Foundation in Singapore. The HEAD Foundation has organized an on-going training platform for NGS educators to improve their delivery of STEM education using the latest techniques and approaches. A recent evolution in the program has been to focus more heavily on the use of mentors graduating from the New Generation Pedagogical Research Center's mentoring

STEM Education Panel Discussion: *The HEAD Foundation brings together experts in educational reform at the STEM Education Forum to discuss new STEM education strategies going forward.*

program to ensure sustained impacts from the on-going training workshops. On 4-5 April 2023, 45 STEM and mentoring practitioners from the SEAMEO STEM-ED Centre, MoEYS, schools, and non-profit organizations from Southeast Asia came together to discuss STEM education and mentoring in the region, with a specific focus on Cambodia (https://headfoundation.org/2023/06/19/stem-mentoring-forum/). The event was hosted by the Center for Digital and Distance Education (CDDE) at the Preah Sisovath HS Campus, which is also playing an increasingly important role in NGS programming.

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An NGS student at Prek Leap HS displays a project he produced demonstrating how a Tesla Coil works. This is just one of hundreds of student projects that have been produced in the NGS System so far this year.

NGS Primary School Level

3.27 General Overview of Programming in NGS Primary School Sites

All four primary schools in the NGS System have now achieved full grade coverage from Grades 1 to 6. Akhea Mahsei PS, the largest of all primary schools, was the last school to move to full grade coverage. There are now 2,508 students studying at New Generation Primary Schools, up slightly from 2,436 students in 2022. An important change in this year's programming is that all four New Generation Schools are now receiving direct budgetary support from the NGS Central Office (using MoEYS funds), a change from previous years when Svay Prahuot PS in Svay Rieng was funded by Child Fund and the Demonstration School was supported through shared funding with Hun Sen Kampong Cham HS (with whom it shares a common campus) and parental donations. This change was achieved through the direct intervention of MoEYS to make some major changes in the 2023 approved budget. All New Generation Schools at primary level now have assigned mentors and are seeing increased investment in specialized facilities such as life skills, computer labs, science labs, and auditoriums. Exposure visits are also planned for the future so that the primary schools in the New Generation School System can visit each other within Cambodia to share experiences. Primary schools have also been participating in international exposure visits that take place in Thailand as well and one such visit involving three New Generation Primary Schools was just completed in late June 2023 (see Section 3.15).

Increasing Support for Cooperative Learning: Mentors in primary schools have been intensifying their support to promote cooperative learning in the classroom.

3.28 EGRA Test Results by Primary School

Early in the reporting period, Primary Schools in the NGS System were provided with school-by-school results on the Early Grade Reading Assessment (EGRA) for the 2022 academic year. By and large, student performance on the 7 reading subtasks that make up the test were extremely encouraging and far, far above what we are seeing for the national average where Grade 1 Zero Scores for Familiar Word Reading stood at 58% (but only 5% among New Generation Primary Schools) (see Table 3.11). Nevertheless, there are some important performance differences between schools that mainly follow an urban-rural divide with urban schools out-performing rural schools. While there were few differences between all schools for the most basic tasks involving consonant, vowel, and letter recognition; some performance differences did begin to emerge for more complex tasks like word reading and reading comprehension with schools such as the Demonstration School (in Kampong Cham) and Akhea Mahasei PS (in Kampong Speu) demonstrating much higher levels of performance. The National Oversight Board has requested the NGS Central Office to start sharing inter-school comparisons among schools so that everyone knows where they stand and what areas of learning they still need to improve.

Table 3.11: Performance Comparison on EGRA Subtasks by School

EGRA Subtask	Demonstration School N=54 (Urban)	Angkor Ban PS N=47 (Rural)	Akheamaha Sei PS N=136 (Urban)	Svay Prahuot PS N=47 (Rural)	Total N=284
Consonant Recognition					
Grade 1	N=23	N=15	N=42	N=15	N=95
Mean Score (Letters per Minute)	32.65	28.27	30.83	26.67	29.60
Zero Score	0%	0%	0%	2%	0.3%
Grade 2	N=15	N=16	N=47	N=16	N=94
Mean Score (Letters per Minute)	31.93	31.56	31.45	27.56	30.63
Zero Score	0%	0%	0%	0%	0%
Grade 3	N=16	N=16	N=47	N=16	N=95
Mean Score (Letters per Minute)	32.75	31.88	31.83	30.69	31.79
Zero Score	0%	0%	0%	0%	0%
Vowel Recognition					
Grade 1	N=23	N=15	N=42	N=15	N=95
Mean Score (Letters per Minute)	22.35	19.13	19.67	17.53	19.67
Zero Score	0%	0%	0%	7%	1%
Grade 2	N=15	N=16	N=47	N=16	N=94
Mean Score (Letters per Minute)	21.27	21.25	20.51	16.38	19.85
Zero Score	0%	0%	0%	0%	0%
Grade 3	N=16	N=16	N=47	N=16	N=95
Mean Score (Letters per Minute)	22.13	20.06	20.30	19.44	20.48
Zero Score	0%	0%	0%	0%	0%
Letter Recognition					
Grade 1	N=23	N=15	N=42	N=15	N=95
Mean Score (Letters per Minute)	37.91	28.93	32.93	17.87	29.41
Zero Score	0%	0%	0%	7%	1%
Grade 2	N=15	N=16	N=47	N=16	N=94
Mean Score (Letters per Minute)	39.87	36.56	38.57	25.94	35.24
Zero Score	0	0	0	0	0
Grade 3	N=16	N=16	N=47	N=16	N=95
Mean Score (Letters per Minute)	49.94	42.50	41.55	36.75	42.69
Zero Score	0%	0%	0%	0%	0%
Familiar Word Reading					
Grade 1	N=23	N=15	N=42	N=15	N=95
Mean Score (Words per Minute)	33.17	18.60	28.67	12.20	23.16
Zero Score	0	0	5%	20%	5%
Grade 2	N=15	N=16	N=47	N=16	N=94
Mean Score (Words per Minute)	42.40	38.44	38.19	17.50	34.13
Zero Score	0%	0%	2%	13%	3%
Grade 3	N=16	N=16	N=47	N=16	N=95
Mean Score (Words per Minute)	48.63	39.25	38.15	36.31	40.58
Zero Score	0%	6%	4%	6%	4%
Oral Reading Fluency					
Grade 1	N=23	N=15	N=42	N=15	N=95
Mean Score (Words per Minute)	53.04	23.67	40.79	20.47	34.49
Zero Score	0%	40%	17%	40%	20%
Grade 2	N=15	N=16	N=47	N=16	N=94
Mean Score (Words per Minute)	59.40	54.94	54.47	27.38	49.05
Zero Score	0%	0%	2%	25%	5%
Grade 3	N=16	N=16	N=47	N=16	N=95
Mean Score (Words per Minute)	60.31	54.88	52.60	51.31	54.77
Zero Score	0%	6%	9%	6%	6%
Reading Comprehension					
Grade 1	N=23	N=15	N=42	N=15	N=95
Mean Score (Questions Answered Correctly)	2.87	1.33	2.45	0.87	1.88
Zero Scores	13%	40%	21%	60%	28%
Grade 2	N=15	N=16	N=47	N=16	N=94
Mean Score (Questions Answered Correctly)	3.67	3.44	3.49	1.75	3.09
Zero Score	0%	0%	2%	38%	7%
Grade 3	N=16	N=16	N=47	N=16	N=95
Mean Score (Questions Answered Correctly)	4.56	4.00	3.83	3.50	3.97
Zero Score	0%	6%	9%	6%	6%

3.29 Upgrading of Educational Facilities in Primary Schools

The program continued to coordinate investments in physical facilities at New Generation Primary Schools to upgrade the overall quality of education. These investments comprised funding from both parents and government, which attests to accelerating community support of primary schools within the NGS System. Investments during the reporting period included school auditoriums (Svay Prahuot PS and Akhea MahSei PS), life skills facilities (Demonstration School), sports fields (Demonstration School), library expansion (Akhea Mahasei PS), and landscaping (all schools). ICT labs and science labs, as well as clinics were upgraded last year. Investments in physical facilities at primary level have been somewhat challenging because funding levels at primary are significantly below those at secondary school level, requiring more engagement for this purpose from parents. Nevertheless, improvements in facilities have been occurring steadily and will continue to do so in the future.
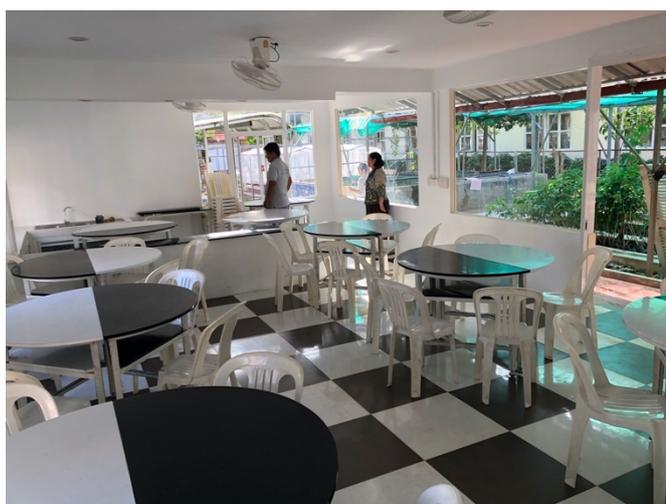
A summary of past and current investments in infrastructure facilities at primary school level can be found in Table 3.12 below as well as **Annex 4,** which provides a detailed breakdown of investments by school. This data indicates that while over a hundred facilities (i.e., classrooms, libraries, etc.) have been renovated over the years, some older renovations undertaken several years ago are in need of being redone while some facilities such as Faculty Rooms have not yet been undertaken. This reporting from schools highlights the continuous need for maintenance and new investment as school facilities used by thousands of children each day undergo a great deal of 'wear and tear.'

Upgrading Educational Facilities: The Demonstration School just completed major investments in a new life skills classroom (top) and sports facilities (bottom).

Table 3.12: Summary of Investment in Primary School Infrastructure 2017-23

Educational Facilities (All Schools)	Total	Already Renovated/New		Renovated This Year	Operational	Remarks
		No.	*%*	*No.*	*Yes/No*	
Classrooms	79	75	93%	3	--	Rooms still in need of repairs/Completed in June-July 2023
Offices	8	8	100%	--		
• Administration	5	5	100%	--	--	
• Mentors	4	3	75%	--	--	
• Faculty Room	0	0	0%	--	--	
Special Purpose Rooms	*36*	*28*	*78%*	*4*	*--*	
• Library	4	4	100%	--	Yes	Tablets: 211; Research Stations: 6

Educational Facilities (All Schools)	Total	Already Renovated/New		Renovated This Year	Opera-tional	Remarks
• ICT Lab(s)	4	4	100%	1	Yes	Student Workstations: 146
• Science Lab	4	3	75%	--	Yes	Equipped with materials (yes)
• English Room	4	2	50%	--	Yes	Equipped with materials (yes)
• Life Skills Room	4	1	25%	1	Yes	Equipped with materials (yes)
• Bio-Garden	4	4	100%	--	Yes	
• Auditorium	4	4	100%	2	Yes	Yes. Seating Capacity: 319
• Clinic	4	4	100%	--	Yes	Equipped with materials (yes)
• Canteen	4	2	50%	--	Yes	

3.30 Mentor-Mediated Activities

All primary schools now have school-based mentors who can provide on-going technical support to teachers and school librarians in a variety of ways. These mentors were provided to schools by the New Generation Pedagogical Research Center, which specializes in mentor training. All assigned mentors have participated in a one-year course leading to the award of a Master's Degree in Mentoring. A total of seven mentors have been assigned to New Generation Primary Schools (see Box 9). The number of mentors provided to a school is commensurate with the number of teachers at any given school.

School-based mentors each support about 10 teachers in various ways such as career path planning, ICT support in their teaching, closer integration of classroom work and library services, and many other Continuous Professional Development tasks. Mentors also help to prepare teachers and students for exposure visits (e.g., to Thailand) and work with school directors to organize special initiatives. One of the special initiatives recently initiated by mentors involves the introduction of *Great Books* Programming to primary schools. This initiative is already quite well-established at secondary school level but does yet exist at primary level. Great Books Programming provides structure to activities that encourage young children to read books of a wide range of genres to broaden their horizons. These activities are coordinated closely with school librarians who provide guidance to children in finding books both online and in hardcopy in the school library.

> **Box 9: Allocation of School-based Mentors by School**
> • Demonstration School: 1 Mentor
> • Angkor Ban PS: 1 Mentor
> • Svay Prahuot PS: 1 Mentor
> • Akhea Mahasei PS: 4 Mentors
> • **Total Mentors: 7 Mentors**

Book Reading Research gets underway at Angkor Ban PS in rural Kampong Cham Province. ↗

New Generation Pedagogical Research Center

3.31 Planning for New Mentor Intake in 2024

The New Generation Pedagogical Research Center is preparing for a fifth intake of mentors, numbering 25 to 32 individuals, depending on the number qualified candidates who can pass the selection process. Following advertising and outreach, a total of 72 individuals applied for admission to the Center of whom 37 or 51% actually showed up for the entrance examination. In the Center's initial proposal, it was hoped that there would be a larger number of candidates for the 5th Cohort in comparison to previous cohorts; however, due to the limited number of applicants and the outcomes of the written entrance exam, only 32 candidates were deemed suitable to proceed to the next stage, which includes interviews and teaching observations. These evaluations will take place during the period 11-13 September, 2023. Consequently, the final count of individuals to be admitted into the Master's Degree Program for the 2023-24 academic year will be determined thereafter. The new term will start in November 2023. The new intake will play a critical role in supporting an expansion of mentor placements to two additional New Generation Schools in 2024 (see **Section 3.11**) as well as mentor placements for the new CamStepUp Project, which will start its roll-out in 2024. One to two mentor placements with project stipends are currently planned for

Recruiting Cohort 5: A new group of potential candidates sits for the entrance examination to the Master's Degree Program in Mentoring.

each of the Secondary Resource Schools established with ADB funding, which will put significant pressure on the Center's ability to meet the growing demand for mentors.

Although the Center did considerable outreach to schools in Phnom Penh such as Wat Koh HS, Chea Sim Santhormok HS, Boeung Trabek HS, Toul Tompong HS, and Boeung Keng Kang HS, the applicant pool was still less than hoped for, as noted above. One of the reasons for a decline in the intake pool in recent years relates to the pending status of a certified mentor within the education system. As there is no official recognition of a mentor's status at a school, many potential candidates feel that the efforts required to become a mentor are not properly rewarded. Although mentors receive considerable recognition at a New Generation School with significant top-ups to their salary and an office, this is not the case in normal schools or schools in other projects. During a recent visit to the Center, H.E. Nath Bunroeun, Secretary of State, was apprised of this problem and has promised to advocate for official status of mentors within the education system, thereby increasing the stature of the position. The Center is also considering reserving a number of candidate places for applicants from the private sector where there is considerable untapped demand. If this were allowed, tuition fees paid by private candidates would revert to the National Institute of Education to defer operating costs.

3.32 Posting and Placement of Current and Previously Posted Mentors

Due to changes in the Cambodian school year in which the new school year starts in January as opposed to October-November in pre-Covid times, the NGPRC has had to modify its schedule for the matriculation of new candidates as well as the posting of current candidates.

Previously, new intakes of degree candidates were matriculated in September of each year; however, given that most candidates are still teaching in their schools in September, this would prove highly disruptive to their resident schools. As a result, the Center has had to delay the matriculation process until November, which also impacts on the placement process for currently enrolled mentors. Thus, the cohort of 25 mentors in Cohort 4 will not undergo placement until October-November 2023, as opposed to September in previous years. For the current year, the Center, therefore, reports that the number of mentors posted to the NGS System currently stands at 38 or about four persons per school while 33 have been posted to non-NGS institutions and TTIs. So far, rates of retention remain quite high with 96% of the 78 mentors who have graduated from the Center remaining in the mentoring system with four individuals opting for scholarships abroad or moving into KAPE to help support New Generation Schools directly (see Table 3.13).

Table 3.13: Assignment of Mentors within the NGS System and Other Institutions, 2020-23

Recipient Institution	2023*			Total Mentors Posted in 2022 (C)	Total Mentors Posted in 2021 (D)	Total Mentors Posted in 2020 (E)	Total C + D + E	Mentors Who Have Left the System	Mentors Who Were Promoted to Vice-Principal	Total Mentors in the current hosted School
	Total Mentors Assigned (A+B)	Mentors Internal to the NGS System (A)	Mentors External to the NGS System (B)							
NGS Institutions										
Preah Sisovath HS				0	4	4	6**	0	0	6
H.S. Kampong Cham HS				1	4	3	8	1	0	7
Prek Leap HS				0	1	3	4	0	0	4
Prek Anchanh HS				2	1	3	6	1	1	4
Peam Chikong HS				1	3	2	6	0	0	6
Kok Pring HS	*To be determined*			2	2	2	6	1	1	4
Demonstration School (Kg Cham)				0	1	0	1	0	0	1
Angkor Ban PS				1	1	0	2	0	1	1
Svay Prahuot PS				0	1	0	1	0	0	1
Akamahesey PS				0	4	0	4	0	0	4
Subtotal				*7*	*19*	*17*	*44*	*3*	*3*	*38*
Non-NGS Institutions										
Nat'l Institute of Education				3	5	2	10	0	0	10
Anuwat Primary School (NIE)				2	0	0	2	0	0	2
Anuwat High School (NIE)				2	0	0	2	0	0	2
PTEC – (P Penh)	*To be determined*			1	0	3	4	0	0	4
BTEC – (Battambang)				0	0	3	3	1	0	2
Samdach Ou HS*				0	3	0	3	0	0	3
Phnomsampov HS*				0	2	0	2	0	0	2
Prosoth HS*				2	0	0	2	0	0	2
PTTC_Siem Reap				2	0	0	2	0	0	2
Net Yang HS*				2	0	0	2	0	0	2
Suong HS*				2	0	0	2	0	0	2
Subtotal				*16*	*13*	*8*	*34*	*1*	*0*	*33*
Total	*25*	TBD	TBD	*23*	*32*	*25*	*78†*	*4*	*3****	*72*
As a Percentage (%)	100%	TBD	TBD	100%	100%	100%	100%	2.5%	4%	--

*The Placement fair for 2023 will be conducted in September 2023; **Two mentors have been terminated from NGS-SSW; as a result, one of them has been reposted in Annuwat HS (NIE), and the other one has been reposted in Suong HS (their original school); *** Three mentors have been promoted to be Vice-School Principals of Annuwat Schools (one for primary school and the other two for Annuwat Secondary School). †Does not include two of the eight mentors originally posted to Sisovath HS.

3.33 Implementation of the Face-to-Face Practicum in 2023

This year, the Center chose two schools to host the 3-month practicum process required for the graduation from the Master's Degree Program. These schools included Prek Leap HS (a New Generation School) and (Preah Norodom PS) a normal school. This is now the second year that the Center has been able to organize a face-to-face practicum, as Covid19 restrictions have faded from view. The practicum process at Prek Leap HS went very well with extremely high engagement and support from the school administration as well as teachers who did not feel at all threatened by the process. Unfortunately, the practicum process faced many more difficulties at Preah Norodom PS where mentors found a highly toxic environment characterized by indifference among administrators and open hostility from teachers who had no interest in 'wasting' their time on a process that could have contributed to their professional development. This experience says a great deal about the level of unprofessionalism and disinterest in CPD processes among regular teachers in the normal school system.

Mentor Practicum Experience: Candidate Mentors doing their practicum at Prek Leap HS found a very welcoming and professional environment, unlike a normal state school where teachers were indifferent and often hostile to the mentoring process. ↗

3.34 Planning for International Conferences under the Auspices of NGPRC & NIE

One of the innovative practices instituted by the NGPRC has been the organization of an international conference on teacher mentoring. The Center has organized two such conferences online in the past with a third one in planning for the next reporting period. The 3ʳᵈ *Cambodia International Conference for Mentoring Educators (CICME-2023)* is currently planned for November 22-24, 2023. This year, the conference will have a hybrid format involving a combination of both online and face-to-face participation. As it has done in previous years, the Center is reaching out to other tertiary intuitions in the region and as far away as Texas A&M University and Arizona State University to participate in the conference. The conference seeks to achieve participation by over 1,000 interested educators and observers.

A second international conference is being planned by the Center in collaboration with MoEYS and KAPE with a focus on Autonomous Schools (see **Section 3.12**). The *International Conference on Autonomous Schools: Creating a New Generation of Schools in the SE Asia and Beyond* is planned to occur on 28-29 September 2023 at the Sokha Hotel in Phnom Penh and will feature speakers from countries throughout the region. It is hoped that the Conference will lead to better networking among educators advocating for the use of autonomous schools as an

important tool to promote educational reform and contribute to the growing body of research in this area.

3.35 Collaboration with the NIE and USE-SDP2 Project

Because KAPE both administers the NGPRC on behalf of the MoEYS and works closely with the MoEYS-ADB funded Upper Secondary Education-Sector Development Project 2, the Center is in a strategically important position to provide technical support to the National Institute of Education. Much of this support is provided by KAPE Advisers assigned to USE-SDP2 who collaborate closely with their colleagues at NGPRC, where in many cases they are also based. Several of the key forms of technical support provided to NIE through NGPRC are summarized in Box 10. These activities help to realize a double mission for the Center beyond supporting the NGS System, but also helping MoEYS to rebuild technical capacity at the National Institute of Education.

3.36 Promoting STEM Education through International Networking

The final area of NGPRC activity during the reporting period relates to intensive networking with international institutions to strengthen STEM Education within the NGS System and in the Cambodian education system in general. This networking includes the roll-out of an innovative STEM training course with the Singapore-based HEAD Foundation for NGS Mentors followed by the organization of a STEM Education Forum with the Foundation at the CDDE (see **Section 3.26**). The Center is also cooperating with other international institutions to promote STEM Education such as Texas A&M University, which will join the 3rd CICME Conference in November 2023 as well as on-going cooperation with Korea-based EMCAST Corporation to develop and administer a Continuous Professional Development program focused on STEM Education for NGS teachers.

> **Box 10: Key Areas of Technical Support Provided by NGPRC to NIE**
>
> 1. Revising the BA+2 Curriculum at NIE.
> 2. Revising the Master's Degree Syllabus.
> 3. Developing a Needs Assessment Report and Recommendations for the emplacement of the *Chuon Nath Library* at NIE.
> 4. Developing Guidelines to promote Professional Learning Communities among NIE Staff.
> 5. Supporting the Research Department to revise the Research Strategic Plan and Thesis Writing Guidelines.
> 6. Creating Evaluation Tools to monitor the quality of research projects proposed by NIE staff.
> 7. Heling the Institute to draft Alumni Association Statutes based on the Cambodia Association of Mentoring affiliated with the NGPRC.

4. CHALLENGES GOING FORWARD

4.1 Challenges Arising from School Independence

As New Generation Schools become more self-sufficient (as a result of expanded parental support) and increasingly more mature in terms of their administrative and technical capacity, there is an emergent risk that schools may start to stray from the guidelines laid out in the MoEYS' *National New Generation School Policy.* Indeed, some schools have even expressed a desire to opt out of the NGS System altogether without realizing that it is the MoEYS' policy framework that enables them to enjoy many of the privileges and freedoms that they currently have. Thus, while MoEYS has successfully promoted educational innovation through reform policies that support independent public schools, the increased freedom extended to public schools also presents certain risks such as those outlined in Box 11. While KAPE, MoEYS' designated implementer of NGS Reforms, has sought to negotiate these sentiments and desires with schools, there is an inherent contradiction in asserting adherence to certain guidelines while also promoting school independence at the same time. These risks are so far still very manageable, and most schools have maintained a very reasonable attitude during these negotiations; nevertheless, these evolutionary trends among more mature New Generation Schools demonstrates the very delicate balance between Freedom and Structure within the NGS System (see Box 12).

> **Box 11: Some Potential Risks Posed to the NGS System by Too Much School Independence**
>
> - Some schools have expressed a desire to opt out of the system altogether.
> - Some schools have sought to stop participating in the Mentor Placement System coordinated by NGPRC to train their own mentors.
> - Some schools have introduced multiple school fees for different services rather than adhering to a single fee package as recommended in the NGS Operational Guidelines.
> - Some schools have moved away from collaborative learning and flexible classroom configuration in order to return to lecture style teaching.
> - Increasing staff incentives without reference to the National Oversight Board.

> **Box 12: Promoting a Philosophy of 'Freedom in Structure'**
>
> The foundational philosophy of the New Generation School System is known as, 'Freedom in Structure.' Under this philosophy, NGS practitioners believe that providing increased freedom and resources to public schools will promote educational innovation, creativity, and risk-taking behavior. However, there is also a recognition that too much freedom can result in anarchy and chaos. Hence, there is also a need to maintain some 'structure' in the system in the form of operational guidelines that are nevertheless flexible in their design and implementation. Maintaining a delicate balance between Freedom and Structure is one of the greatest challenges in implementing the New Generation School Policy.

4.2 Short Shelf Life of Technology

As investment cycles in many schools come to an end, the NGS System is noticing that much of the equipment procured during earlier cycles is in need of replacement. This refers mainly to teacher laptops, tablets, and desktops (in computer labs). With the rapid evolution of technology, many devices become obsolete quickly and either require updating or replacement. Laptops seem to have a shelf life of only three to four years and tablets even less so. Because technology plays such an important role in the modernization of New Generation Schools, there will be an on-going need for continuous investment to replace obsolete equipment. Given the high unit costs for ICT-based equipment, this is going to be a financial challenge for many schools to reserve parent funds for this purpose each year. During the current fiscal year, the NGS Central Office reports that it has already had to make significant investments in replacing obsolete technology (see Box 13).

> **Box 13: New Investments in Technology (2023)**
>
> - ICT Lab Desktops: 28 devices
> - ICT Lab Servers: 2 devices
> - Tablets: --
> - Teacher Laptops: 29 devices
> - LCD Projectors: 32 devices

4.3 Financial Risks of External Income Streams

As noted earlier in this report, the financial income of New Generation Schools has been steadily growing as more and more parents buy into the idea of funding high educational quality models that are transparent, rationalized, and well-governed. In 2022, over $1.6 million was received by New Generation Schools from parents and in 2023, this figure is expected to reach $1.8 million. With the increasingly large budget to manage and the multi-source nature of the funding (e.g., MoEYS, NGS Central Office, Parents), the challenges for maintaining effective financial management are becoming ever greater. Using the current government system of financial accounting is difficult because it lacks provisions to oversee multiple sources of funding at the same time, which creates a risk of double dipping when accounts are charged. In order to increase the capacity of schools to manage their funds more responsibly, the NGS Central Office has sought to create a more detailed set of accounting guidelines that will meet the current financial management needs of all schools. These new guidelines should take effect in time for the new school year in 2024 following a planned series of capacity building workshops for school accountants/managers in the next reporting period (July-December 2023).

> **Box 14: Why New Generation Schools Are Actually Cheaper than Normal Public Schools**
>
> New Generation Schools are often criticized because they are expensive and impose fees for high-quality educational services. In fact, nothing could be further from the truth. Unlike most public schools where irregular teacher fees are rampant for private classes (i.e., rien kua), New Generation Schools forbid the practice of irregular fees. Rather, all payments are standardized and revert directly to the school (rather than teachers' pockets) where they are used to improve educational services in a rationalized framework, much like a private school does. This system is much more efficient than the rien kua system where parents report paying over $100/month for educational services that are actually quite low in quality. In contrast, annual fees at a New Generation School are about $200 to $300 per year or less than $30/month.

4.4 Status of the New Generation Pedagogical Research Center at NIE

As the National Institute of Education moves forward with internal reforms and restructuring, the independent status of the New Generation Pedagogical Research Center has recently come into question. In the current organizational structure of the institute now approved by MoEYS, the NGPRC will no longer be an independent research center but rather a department within the institute. The designation of the center will be changed to 'New Generation Pedagogical Research Department' (see **Annex 5**). The original agreement between KAPE and MoEYS asked KAPE to build and manage the center (starting in 2019) with its key mandate being to provide the New Generation School System with enough school-based mentors to ensure technical sustainability in all sites. Relatedly, the Center was intended to help MoEYS provide the needed human resources to expand the New Generation School System. Mentors are intensively trained at the Center for one year at the end of which they receive a master's degree.

Through its partnership with KAPE, the Center was able to legally apply for research grants, sign cooperation agreements with relevant foundations (e.g., HEAD Foundation, The Asia Foundation, etc.), and devise its own strategic planning. By being

absorbed into the NIE structure, many of these freedoms will be lost, thereby hobbling the independence and effectiveness of the Center. At the same time, MoEYS continues to contractually engage KAPE each year to manage and fund the Center with government resources. Thus, it will be important for KAPE to clarify with MoEYS whether current arrangements will continue or whether the Center will revert to direct management by the National Institute of Education.

4.5 Official Status of Mentors and Dwindling Applicant Pools

The NGPRC has recently reported a decline in the number of applicants who wish to become mentors. Over the last several years, the number of applicants has declined from over 150 (for 25 places) in the first year of Center operation to about 70 or less in more recent years. There are a number of reasons underpinning the decline in the applicant pool for the Master's Degree Program. Probably the main reason is the lack of official recognition for those who are officially certified by the Center as a Mentor. When mentors enter a school, they have the same status as other teachers and lack an official job description. While this is not the case at a New Generation School where mentors receive a special top-up in salary, have a contract and Terms of Reference, and are given their own office and strong support from the school's administration, it is certainly the case in normal schools in the education system. Indeed, many mentors report that they are greeted with indifference or even hostility by many teachers who have no or little interest in their continuous professional development. Thus, while there is official support for the concept of mentoring in the public schools, the lack of official recognition and toxic CPD environments in many schools does not create the enabling environment needed for a mentor to be effective (see **Section 4.8** below).

It should also be pointed out that entry to the Master's Degree Program at NGPRC is limited to state candidates only since the NIE has been established to serve the needs of the public school system. This limitation constrains the Center's ability to tap into the private sector where there is considerable demand for the Mentoring Degree. This speaks to the vibrant interest in professional standards in private schools as opposed to the state school system where there are few incentives for teachers to improve themselves and teacher termination is very rare.

4.6 The Importance of an Independent Accreditation System

As existing New Generation Schools grow more mature in their operation and new schools are expected to enter the system starting in 2024, it is increasingly important for there to be in place an independent, well-resourced Accreditation Unit within the NGS System. The Accreditation Unit can then focus more fully on helping schools to adhere to NGS philosophies and tenets as well as orient new schools to accreditation criteria, as they start their investment cycles. As noted earlier, several instances have already occurred where some schools are straying from key NGS tenets as these relate to class sizes, classroom configurations, teaching methods, financial management practices, and other key areas of organization. One school has already been placed on probational status with a three-month grace period to address those issues that have been identified. The rigorous NGS accreditation process helps to bring schools back into line with policy expectations. At the present time, the Accreditation Unit is quite small and is comprised of both KAPE and government staff, the latter of whom only work part-time when accreditation visits are planned. As more and more schools enter the system, more resources and (full-time) staff will need to be allocated to the Accreditation Unit while at the same time increasing the distance between the NGS Central Office (which implements programming) and the Accreditation Unit to increase independence and impartiality. It is hoped that a separate office for the Accreditation Unit can soon be established within the New Generation Pedagogical Research Center along with additional staffing and resources.

4.7 Need to Address Exam-driven Learning That Undermines 21ˢᵗ Century Skills

One of the main obstacles to improving education in Cambodia relates to the test- and textbook-driven nature of the teaching-learning process. Because teachers, students, and parents are so fixated on achieving good marks on standardized paper & pencil tests, there is little interest in using new teaching methodologies, ICT, or science lab facilities, since these things have little effect on helping students to pass standardized tests. New Generation School strategies have sought to wean schools away from the practice of using high-stakes examinations to assess student learning and have resolutely resisted pressure to introduce high-stakes testing into the School Accreditation process. Nevertheless, several development projects supported by the development banks have been moving in the opposite direction, thereby increasing the test-driven nature of the education system. It is the belief of NGS practitioners that such practices will not have a positive effect on educational effectiveness and will only undermine investments that are designed to modernize the education system (e.g., ICT in education, hands-on science, etc.). As noted earlier, the NGS Central Office has created a Student Assessment Policy, which lays out the philosophy of student evaluation in a New Generation School and pushes back against the idea of test-driven learning.

The goal of the MoEYS in establishing the New Generation School System was to accelerate the process of moving the Cambodian education system into the 21ˢᵗ Century. Education systems of the new century place a great deal more emphasis on enabling students to apply what they learn in practical settings rather than memorizing what they read in the textbook. The table below helps to summarize some of the key differences between a 20ᵗʰ and 21ˢᵗ Century Education System and how this impacts the NGS Philosophy of Assessment.

Table 4.1: Comparing Modalities of Organization between 20ᵗʰ and 21ˢᵗ Century Education Systems

Parameter	20ᵗʰ Century	21ˢᵗ Century
Concept of Learning	• Information Transfer • Passive Learning	• Learning to Learn • Active Learning
Curriculum	• Standardized • Textbook-driven	• Individualized • Research-driven
Student Assessment	• Test-driven • Focus on lower-order thinking	• Project or Portfolio-driven • Focus on higher-order thinking
Educational Philosophy	• Compliance • Conformity • Uniform	• Dynamic • Non-conformist • Creative

From this table, it is easy to see that conventional student testing, as it is usually thought of, is not a very efficient tool through which to promote active learning or higher order thinking simply because it is difficult to formulate test questions that can capture the higher order thinking skills such as Synthesis and Evaluation. Thus, the philosophy of assessment within the NGS System places much more focus on using a diverse range of assessment tools (i.e., differentiated assessment) such as portfolios, project work, exhibitions, debates, club work, and the use of other creative products to complement the more traditional use of paper and pencil tests.

4.8 The Challenge of Maintaining Dynamism in the Face of Demands for Standardization

Although many observers frequently focus on the material investments in a New Generation School as a defining characteristic, the core substance of a school's transformation into a high-quality educational institution is really more focused on changing the 'mindsets' of administrators, teachers, and students (see Box 15) so that schools are in a constant state of dynamic change and innovation. This transformation in stakeholders' mindset involves moving from a

'fixed' to a 'growth' mindset. Some of the characteristics of a growth mindset are summarized below.

Some Characteristics of a Growth Mindset in an Educational Setting

- You believe that achievements rely primarily on effort, not just inherent talent.
- You are willing to learn from your mistakes and find value in criticism.
- You are not threatened by change but rather welcome it if it has the potential to improve educational quality
- You welcome the relaxation of bureaucratic constraints that hold back change and innovation.
- You are willing to take reasonable risks to achieve positive change.
- You believe that your intelligence and ability are not static and can be developed/improved.
- You are willing to ask questions and admit when you don't know something.

Box 15: What is a Mindset?

A mindset refers to an established set of attitudes that a person holds concerning, culture, values, philosophy, frame of mind, outlook, and disposition. When educators speak of the challenges involved in changing mindsets, we often speak of Fixed and Growth Mindsets.
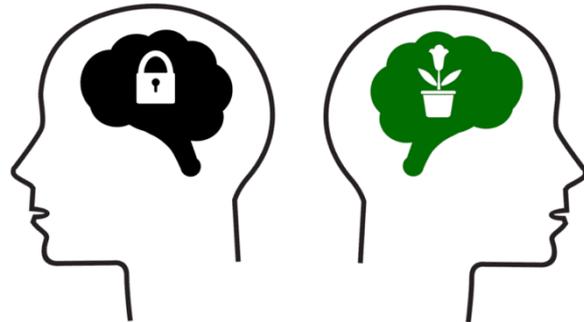
In contrast, a 'fixed' mindset characterizes educators who are generally risk-averse, opposed to change, and comfortable with bureaucratic constraints that pigeon-hole individuals' behavior. The toxic professional environment described at Preah Norodom PS in **Section 3.33** highlights the challenges faced by the education system when mindsets are fixed.

Although the New Generation School development strategy is clearly to promote growth mindsets among stakeholders, there is nevertheless an undercurrent of sentiment that pushes against continuous change as per the behavioral norms commonly found in most public schools. There are also strategic trends in several on-going projects funded by mainstream donors that promote prescriptive teaching, standardized assessment, and top-down development approaches, which dovetail with prevailing norms in most schools. These trends only serve to reinforce fixed mindsets. Thus, promoting dynamic development through the use of growth mindsets will continue to be a major challenge for the NGS System going forward.

Self-directed learning and the transition away from lecture-oriented teaching is one example of a growth mindset in a New Generation School.

5. CONCLUSIONS

General Evolutionary Trends: The present academic year has been characterized by a number of key interrelated trends that indicate accelerating maturity and self-sufficiency among New Generation Schools (see Figure 5.1). This maturity mainly manifests itself in the form of higher quality educational services and improved levels of governance. These improvements have been validated by a school accreditation process that is growing increasingly more important and rigorous. Indeed, nearly all schools have achieved accredited status based on the 24 process criteria outlined in the NGS Policy Framework. Official accreditation provides concrete evidence to parents that educational quality and governance is increasing, thereby justifying more financial support to schools. As a result, schools are finding ever stronger financial support from parents leading them to a point of greater self-sufficiency. And as schools become more self-sufficient, they are also becoming less reliant on government funds, which is helping the program to free up funds that can be used for an expansion to more school sites. All of these trends are interconnected with one leading to another and will contribute greatly to enhanced prospects for sustainability and quality assurance.

Figure 5.1: Distinct Trends in the Recent Evolution of New Generation Schools
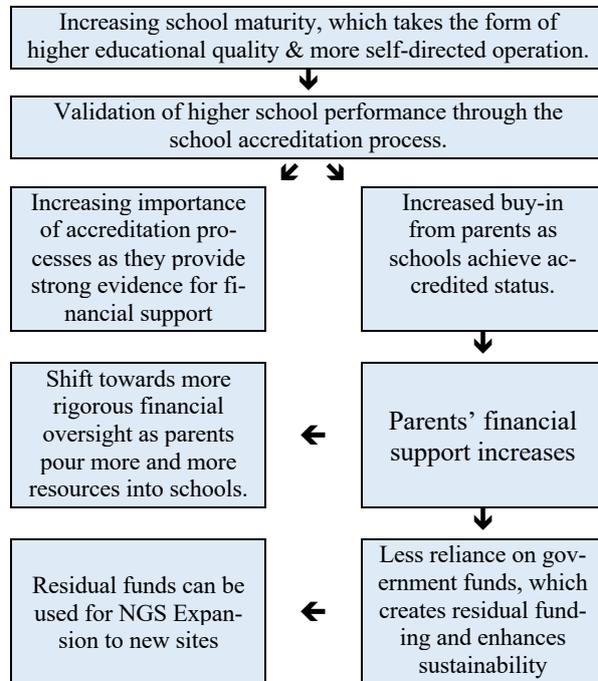
Key Milestones: As New Generation Schools continually improve their standards of performance, a number of important milestones were achieved that help to justify the high investment made by government. These milestones are summarized below:

Increasing Enrollment: The level of student enrollment continues to increase demonstrating a high demand for New Generation School services from the general public. Enrollment broke the 9,000-student mark as the 2023 academic year began (see Figure 5.2).

Figure 5.2: Increasing Enrollment in the NGS System 2016-23
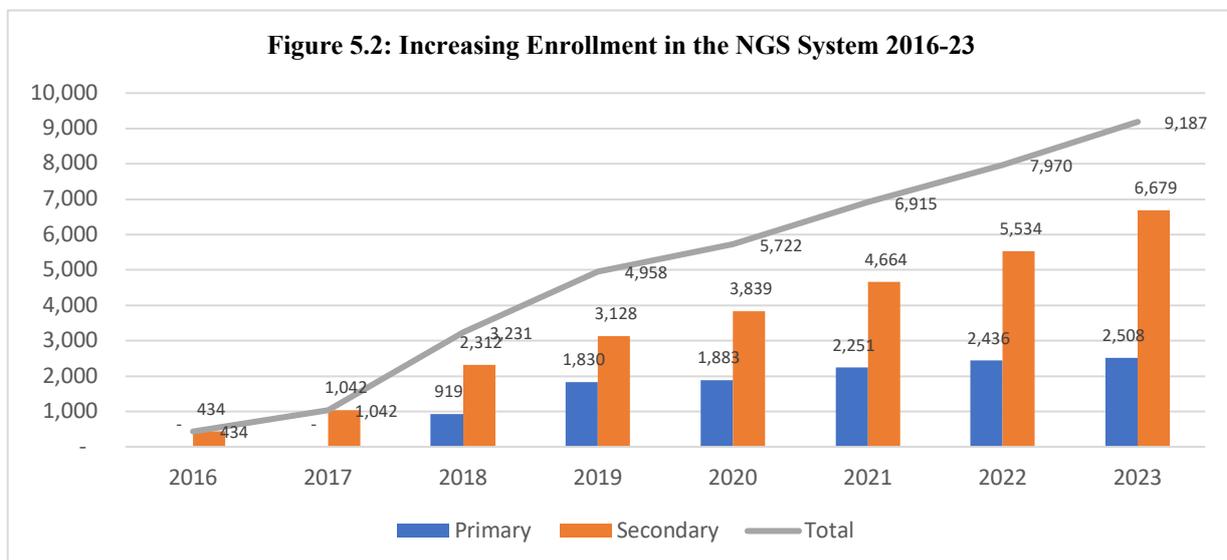
Enhanced Financial Sustainability: Schools achieving accredited status are empowered by the NGS Policy Framework to negotiate voluntary school fees from local communities. A safety net is built into these negotiations for poor families in the form of a Social Equity Fund financed by MoEYS. With the commitment to root out corrupt *rien kua*[10] practices, NGS school fees present a win-win scenario for middle class parents, as these are much cheaper than *rien kua* and private schools. Parental funding for 2023 has exceeded $1.6 million, a new record for the program.

Expansion into Gaming Technology: The MoEYS has made a commitment to support Skills Accelerator Initiatives as part of a new collaboration with the World Economic Forum. The NGS System is helping MoEYS to keep this commitment by initiating a unique course in Gaming Technology, which is the fastest growing subsector in the ICT industrial sector. A new curriculum and state-of-the-art lab design have been developed and piloted during the reporting period with plans for a roll-out to more schools in place for 2024.

Development of a National Manual to Promote Project Work: The NGS System continues to provide important technical support to MoEYS departments to promote 21st Century teaching-learning methodologies. As part of this support, NGS Advisers completed a user-friendly Project Work Manual that will be disseminated to the entire country in collaboration with the National Institute of Education in the next reporting period.

Preparations for NGS Expansion Approved: The final milestone event during this reporting period was an approval from the Ministry of Economy and Finance to support an expansion of NGS programming to two new sites starting in 2024. This expansion will be financed through residual funds generated by increasing self-sufficiency among existing New Generation Schools. This expansion has been in planning for many years and will start a long-anticipated march to 20 New Generation Schools by the end of the decade.

On-going Challenges: The success of the New Generation School experiment has also generated some its greatest challenges. For example, the huge amount of resources being poured into the system's schools by parents has raised the risks of financial mismanagement, requiring swift action by the program to expand financial management guidelines, capacity-building, and monitoring. Similarly, schools are slowly realizing just how much freedom the MoEYS has extended to them for purposes of promoting innovation. While such freedoms are a boon to educational innovation, they also raise the possibility of schools straying from key philosophies enumerated in the NGS Policy Framework such as rationalized fee packages, dynamic classroom configurations, and a commitment to the use of school mentors. These and other issues require continuous negotiation with schools to maintain a common understanding of NGS policies, philosophies, and guidelines.

Unlike the challenges identified above, the final challenge that should be mentioned is 'external' to the NGS System. This refers to growing trends to shift educational reforms towards more top-down strategies that promote standardization and the excessive use of testing to achieve quality assurance targets. These trends are amplifying the test- and textbook-driven culture in schools that tends to stifle educational innovation. Already, several national projects have embraced very prescriptive, standardized, and test-driven approaches to promoting educational quality, which contrast sharply with the approach used in NGS settings. NGS planners are trying to resist such trends and hope that they will not dilute/undermine the successful practices that have gradually taken root in New Generation Schools.

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[10] Private classes.

ANNEX 1: Incentive Increment Guidelines

Guidelines for Incentive Increments for School Staff in New Generation Schools

Background: As New Generation Schools raise generous support from parents to fund the operations in each school, it has become important to re-affirm explicit guidelines on how incentive payments can be increased in a manner that ensures both transparency and accountability. Because the operating environment of each New Generation School is so different, particularly with respect to schools in urban and rural environments, it is challenging to create standardized procedures that would be appropriate for all schools. Nevertheless, the following guidelines are put forward to ensure high standards of governance in the modification of incentive payments.

Suggested Guidelines

Guideline 1: Any increment in incentive pay for either teachers or administrators must be reviewed and approved by the National Oversight Board. This guideline applies to resources raised by schools from all sources including government and parental contributions.

Guideline 2: Incentive increments should normally occur within a range of 5% to 10% per year, based on an annual performance appraisal. Incentive increments should be performance-based. That is, if the school's performance is static, incentive increments may not be appropriate.

Guideline 3: Incentive increments need to be commensurate with the available budget provided by government or raised by parents and should be reviewed every year.

Guideline 4: Increments may only be considered for school staff if the school maintains its accreditation with the NGS Accreditation Office and the school's performance is in line with program requirements/expectations. Poorly performing schools should not be eligible for increments.

Guideline 5: The maximum increment that the National Oversight Board may approve in a single year is 50% and this should only be granted in very special circumstances (e.g., performing multiple tasks unrelated to one's normal work duties, outstanding performance that raises the profile of a school greatly, retroactive payment to cover several years of fixed incentives, etc.). There should be clear justification for very large increments in incentives of this magnitude.

Guideline 6: Incentive increments may also be provided in the form of one-time bonuses if budget is available and in recognition of outstanding performance, as determined by the Board (e.g., teachers receiving bronze, silver or gold medals, outstanding performance on the Bac II Examination, etc.).

កិច្ចប្រជុំឆ្លុះបញ្ចាំងកម្មវិធីសាលារៀនជំនាន់ថ្មី

កាលបរិច្ឆេទ និងទីកន្លែង ៖ ថ្ងៃទី១០-១១ ខែកក្កដា ឆ្នាំ២០២៣, ខេត្តកំពត

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គោលបំណង៖ ពិនិត្យឡើងវិញនូវស្ថានភាពនៃការអនុវត្តកម្មវិធីរហូតមកដល់ពេលបច្ចុប្បន្ន កំណត់បញ្ហាប្រឈមនិងដំណោះស្រាយ ការកំណត់សកម្មភាពដើម្បីពង្រឹងនិរន្តរភាពសាលារៀនបច្ចុប្បន្ន និងការកំណត់ផែនការសម្រាប់ការពង្រីកកម្មវិធីសាលារៀនជំនាន់ថ្មី ។

ពេលវេលា	ប្រធានបទ	អ្នកធ្វើបទបង្ហាញ
ថ្ងៃទី១ (ទី១០ ខែកក្កដា ឆ្នាំ២០២៣)		
	I. **ពិធីបើក**	
៨:០០ ព្រឹក	កិច្ចស្វាគមន៍ និងការបង្ហាញរបៀបវារៈ	អ្នកកាន់កម្មវិធី
៨:១០ ព្រឹក	មតិបើកកិច្ចប្រជុំឆ្លុះបញ្ចាំងដោយលោក **លោក សៅ វណ្ណា** នាយកប្រតិបត្តិអង្គការខេប	**លោក សៅ វណ្ណា** នាយកប្រតិបត្តិអង្គការខេប
	II. **ទិដ្ឋភាពទូទៅអំពីវឌ្ឍនភាព សមិទ្ធផល និងបញ្ហាប្រឈម កម្រិតកម្ម វិធីNGSទាំងមូល**	
៨:៤០ ព្រឹក	បច្ចុប្បន្នភាពវឌ្ឍនភាព សមិទ្ធផល បញ្ហាប្រឈម និង ផែនការអំពីកម្មវិធីNGS ៖ • វិសាលភាពបច្ចុប្បន្ន ការវិនិយោគ អ្នកទទួលផល • ចេនាសម្ព័ន្ធកម្មវិធីសាលារៀនជំនាន់ថ្មី • សមិទ្ធផលសំខាន់ៗ • គួនាទីសាលារៀនជំនាន់ថ្មីសម្រាប់លើកកម្ពស់នវានុវត្តន៍អប់រំ • និរន្តរភាពហិរញ្ញវត្ថុ និងបច្ចេកទេសតាមសាលា រៀន • គោលនយោបាយពាក់ព័ន្ធសំខាន់ៗរបស់ក្រសួង អប់រំ • ការគាំទ្រកម្មវិធីអភិវឌ្ឍន៍មួយចំនួនដល់ដៃគូ និង ក្រសួង • ការគាំទ្រកម្មវិធីNGSប្រទេសឡាវ	**លោក អុិល រុន** ប្រធានប្រតិបត្តិកម្មវិធីNGS **លោក Kurt** ទីប្រឹក្សា បច្ចេកទេសជាន់ខ្ពស់

	• គោលនយោបាយវ៉ាស់វែងការសិក្សាសិស្ស • គោលការណ៍ណែនាំអំពីការដំឡើងប្រាក់លើកទឹក ចិត្តជូនបុគ្គលិកសាលារៀន • ការពង្រឹកសាលារៀនជំនាន់ថ្មី	
៩:៤0 ព្រឹក	**សម្រាកពេលព្រឹក**	
១0:00 ព្រឹក	**ការធ្វើបច្ចុប្បន្នភាពអំពីការទទួលស្គាល់គុណភាពសាលា រៀនជំនាន់ថ្មី** • ដំណើរការទទទួលស្គាល់គុណភាពសាលារៀន ជំនាន់ថ្មី • ស្ថានភាពសាលារៀនដែលបានទទួលស្គាល់គុណ ភាព និងសាលារៀនដែលមិនទាន់ទទួលបាន • បញ្ហាប្រឈម • ចក្ខុវិស័យក្នុងការបង្កើតការិយាល័យទទួលស្គាល់ គុណភាពដែលឯករាជ្យ ។	លោក ផាន់ ប៊ុនណាត អ្នកសម្របសម្រួលការ ទទួលស្គាល់គុណភាព សាលារៀនជំនាន់ថ្មី
១១:00 ព្រឹក	**ការវិវឌ្ឍគួនាទីរបស់មជ្ឈមណ្ឌលស្រាវជ្រាវគរុកោសល្យ ជំនាន់ថ្មី** • ស្ថានភាពបច្ចុប្បន្ន និងសមិទ្ធផល • ជំនួយការបង្រៀកទេសសម្រាប់វិទ្យាស្ថានជាតិអប់រំ និងសាលាអនុវត្តន៍ • យុទ្ធសាស្ត្របែងចែកគ្រូប្រឹក្សាគរុកោសល្យ • តម្រូវការពង្រឹកសមត្ថភាពស្រាវជ្រាវ • បញ្ហាប្រឈម	បណ្ឌិត ស៊ុន សុម៉ារ៉ា អ្នក សម្របសម្រួលមជ្ឈមណ្ឌល ស្រាវជ្រាវគរុកោសល្យ ជំនាន់ថ្មី
១២:00 ថ្ងៃ	**សម្រាកអាហារថ្ងៃត្រង់**	
១:៣0 រសៀល	**ស្ថានភាពហិរញ្ញវត្ថុ ការពង្រឹងការចំណាយ និងទូទាត់ ថវិកាកម្មវិធីកណ្ដាល និងថវិកាមាតាបិតាសិស្ស បញ្ហា ប្រឈម និងផែនការពង្រឹងគុណភាព** • ការទទួលថវិកាពីក្រសួង (បឋម មធ្យម និង មជ្ឈមណ្ឌល) • ការខ្វើថវិកាពីFFF និងការសេង • ការធ្វើលទ្ធកម្ម • ស្ថានភាពការចំណាយប្រាក់បេសកកម្ម	លោក ប៊ូ សម្បត្តិ នាយក ហិរញ្ញវត្ថុអង្គការរេប លោក ហ៊ីន ស៊ីមហ្សុន អ្នក សម្របសម្រួលកម្មវិធី NGS និង នាយករងអង្គការរេប

	- ការពង្រឹងតួនាទីមន្ត្រីរដ្ឋបាលនិងហិរញ្ញវត្ថុ - ការត្រួតពិនិត្យការចំណាយថវិកា - ការគ្រប់គ្រងផែនការអភិវឌ្ឍន៍សាលារៀន - ការគ្រប់គ្រងកិច្ចព្រមព្រៀងរវាងសាលារៀន និង កម្មវិធីNGS	**លោកស្រី សំ ឡ្យាវែត** ប្រធានផ្នែកហិរញ្ញវត្ថុអង្គការខប **លោក ស្វាយឃា** ប្រធានផ្នែករដ្ឋបាលនិងហិរញ្ញវត្ថុកម្មវិធី NGS
២:៣០ រសៀល	**ការធ្វើបច្ចុប្បន្នភាព បញ្ហាប្រឈម និងផែនការពង្រឹងគុណភាព** - ការសម្របសម្រួលការអនុវត្តផែនការសកម្មភាព របស់កម្មវិធី និងសាលារៀន - ការធ្វើផែនការអភិវឌ្ឍសាលារៀន - ការធ្វើកិច្ចព្រមព្រៀងរវាងសាលារៀននិងកម្មវិធី - ការធ្វើផែនការវិនិយោគ - ការបង្កើតគណៈកម្មការCPD - ប្រព័ន្ធប្រឹក្សាគរុកោសល្យប្រចាំសាលារៀន	**លោក ប៉ាន ចន្ថី** អ្នកសម្របសម្រួលផ្នែកមធ្យមសិក្សា
៣:១៥ រសៀល	**សម្រាកពេលរសៀល**	
៣:២៥ រសៀល	**ការធ្វើបច្ចុប្បន្នភាព បញ្ហាប្រឈម និងផែនការពង្រឹងគុណភាព** - ការសម្របសម្រួលការអនុវត្តផែនការសកម្មភាព របស់កម្មវិធី និងសាលារៀន - ការធ្វើផែនការអភិវឌ្ឍសាលារៀន - ការធ្វើកិច្ចព្រមព្រៀងរវាងសាលារៀននិងកម្មវិធី - ការធ្វើផែនការវិនិយោគ - ការបង្កើតគណៈកម្មការCPD - កម្មវិធីគណិតវិទ្យាជាមួយ Everyone Count	**លោកស្រី ឈុន មួយលី** ប្រធានក្រុមផ្នែកបឋមសិក្សា **លោក ហ៊ុន ស៊ីមហ្កន** អ្នកសម្របសម្រួលកម្មវិធី NGS និង នាយករងអង្គការខប
៤:០០ រសៀល	**ការបង្កើតសៀវភៅគ្រប់គ្រងហិរញ្ញវត្ថុកម្មវិធីសាលារៀនជំនាន់ថ្មី** - ការបង្ហាញអំពីផែនការការងារអភិវឌ្ឍន៍សៀវភៅ គ្រប់គ្រងហិរញ្ញវត្ថុ - ការបង្ហាញសេចក្តីព្រាងមាតិកាសំខាន់	**កញ្ញា ហៀត វត្ថី** អ្នកពិគ្រោះការផ្នែកហិរញ្ញវត្ថុ

	• ការពិភាក្សាប្រមូលធាតុចូលពីអ្នកចូលរួម	
៥:០០ ល្ងាច	**ចប់ថ្ងៃទី១**	
ថ្ងៃទី២ (ទី១១ ខែកក្កដា ឆ្នាំ២០២៣)		
៨:០០ ព្រឹក	**ប្រព័ន្ធត្រួតពិនិត្យតាមដាន និងវាយតម្លៃកម្មវិធីNGS** • ផែនការការងារកម្មវិធីNGS • ប្រព័ន្ធម៉ាទ្រីចកម្មវិធី • ការបង្កើតឧបករណ៍ត្រួតពិនិត្យតាមដាន និងវាយតម្លៃ • ផែនការបង្កើតប្រព័ន្ធឌីជីថលគ្រប់គ្រងការពិនិត្យតាមដាន និងវាយតម្លៃ (ទាំងបច្ចេកទេស និងហិរញ្ញវត្ថុ) • ការពិភាក្សាកសាងប្រព័ន្ធM&E	**លោក នូ រដ្ឋា** មន្ត្រីត្រួតពិនិត្យតាមដាន និងវាយតម្លៃ
	III. **ការធ្វើបច្ចុប្បន្នភាព បញ្ហាប្រឈម និងផែនការពង្រឹងគុណភាពតាមផ្នែក**	
៩:០០ ព្រឹក	**កម្មវិធីប្រឹក្សាអាជីព** • ការធ្វើបច្ចុប្បន្នភាពកម្មវិធី • ការប្រើប្រាស់កម្មវិធីត្រីវិស័យ • ការធ្វើសុខដុមនីយកម្មជាមួយឯកសារប្រឹក្សាអាជីពថ្មីរបស់ក្រសួង ដែលុ ជាមួយកម្មវិធីNGS • បញ្ហាប្រឈម • ផែនការពង្រឹងកម្មវិធី	**កញ្ញា អុ៊ង ចន្ថី** មន្ត្រីប្រឹក្សាអាជីព
៩:២០ ព្រឹក	**កម្មវិធីសុខភាពសិក្សា** • ការធ្វើបច្ចុប្បន្នភាពកម្មវិធី (ការបំពាក់គ្រឿងសម្ភារៈ;ពេទ្យ ការជ្រើសរើសគិលានុបដ្ឋាយិកា) • ប្រព័ន្ធសម្របសម្រួលការងារ • បញ្ហាប្រឈម • ផែនការពង្រឹងគុណភាពកម្មវិធី (ផែនការសកម្មភាពរបស់គិលានុបដ្ឋាយិកា)	**កញ្ញា វីដា** មន្ត្រីផ្នែកសុខភាពសិក្សា
៩:៤៥ ព្រឹក	**សម្រាកពេលព្រឹក**	
១០:០០ ព្រឹក	**កម្មវិធីបណ្ណាល័យ** • ការធ្វើបច្ចុប្បន្នភាពផែនការការងារ • បញ្ហាប្រឈម • ការបង្ហាញអំពីកម្មវិធីM-learning ដើម្បីពង្រឹងបណ្ណាល័យសតវត្សរ៍ទី២១	**លោក ពេជ្រ សុវៀន** ទីប្រឹក្សាជួយបណ្ណាល័យ
១០:២០ ព្រឹក	**ការងារហេដ្ឋារចនាសម្ព័ន្ធ និងសំណង់** • ការធ្វើបច្ចុប្បន្នភាព • ផែនការសាងសង់ ជួសជុល • ការធ្វើលទ្ធកម្ម • បញ្ហាប្រឈម	**លោក ស៊ីណាក់ វិស្វករកម្មវិធី**

	● ផែនការពង្រឹងការថែទាំហេដ្ឋារចនាសម្ព័ន្ធ	
១០:៤០ ព្រឹក	**ការអប់រំ ICT** ● កម្មវិធីគ្រប់គ្រងសាលារៀន NGS Mobile ● កម្មវិធីប្រព័ន្ធព្យាកដាមុន EWS ● វេបសាយកម្មវិធីសាលារៀនជំនាន់ថ្មី NGS web-site ● ហ្វេសប៊ុកកម្មវិធី NGS ● កម្មវិធីGame Technology ● កម្មវិធី x-reading ● កម្មវិធីសរសេរកូដ និងរ៉ូប៊ូតជាមួយក្រុមហ៊ុន Man-goSTEEM ● កម្មវិធី Observic សម្រាប់ប្រឹក្សាគរុកោសល្យគ្រូបង្រៀន ● តម្រូវការអ្នកជំនួយការផ្នែកថែទាំវទិកាឌីជីថល ការទំនាក់ទំនង និងមីឡៀ ? ? ● ផ្សេងៗ	**លោក ជិន ការុណ** ប្រធានក្រុមផ្នែកICT **លោក សរ សុជាណាក់** អ្នកសម្របសម្រួលផ្នែកICT អង្គការខប
១២:00 ថ្ងៃ	**សម្រាកអាហារថ្ងៃត្រង់**	
១:៣0 រសៀល	**ការអប់រំផ្នែកវិទ្យាសាស្ត្រ** ● វឌ្ឍនភាពកម្មវិធីអប់រំស្ទេមទាំងក្នុងកម្មវិធី ដៃគូ និងក្រសួងអប់រំ (ឯកសារថ្មីៗ) ● ការរៀបចំកម្មវិធីពិព័រណ៍ស្ទេម ● កម្មវិធី Arduino ● បញ្ញាប្រឌិម ● ការរៀបចំកម្មវិធីសិក្សាស្ទេមជាប្រព័ន្ធសម្រាប់ K-12	**លោក អ៊ាង ពិសី** ប្រធានក្រុមផ្នែកវិទ្យាសាស្ត្រ
	IV. **ការកំណត់ផែនការសម្មភាពទៅមុខ និងការពិភាក្សា**	
២:00 រសៀល	**ការកំណត់ផែនការសកម្មភាពដើម្បី ពង្រឹង និងពង្រីកកម្មវិធីសាលារៀនជំនាន់ថ្មី និងការពិភាក្សា** ● ការរៀបចំគោលការណ៍ណែនាំគ្រប់គ្រងហិរញ្ញវត្ថុសាលារៀនជំនាន់ថ្មី ● ការរៀបចំប្រព័ន្ធត្រួតពិនិត្យតាមដាន និងវាយតម្លៃ	**លោក អ៊ុល រុន** ប្រធានប្រតិបត្តិកម្មវិធី **ទាំងអស់គ្នា**

	• ការរៀបចំកម្មវិធីសិក្សាស្នូលជាប្រព័ន្ធ គ្រប់កម្រិតថ្នាក់ (k-12) • ការជ្រើសរើសសាលារៀនថ្មី២នៅខេត្តសៀមរាប • ការបណ្ដុះបណ្ដាលអំពីការសិក្សាបែបគម្រោង សម្រាប់ប្រធានគម្រោងអង្គការខេប និងតាមសាលារៀនNGS • ការជ្រើសរើសសាលារៀនថ្មីដើម្បីគាំទ្រ (ការធ្វើសំណុំបែបបទសម្រេចចិត្តជ្រើសរើស ការធ្វើលិខិតដើម្បីមានការទទួលស្គាល់ជាគោលការណ៍ពីក្រសួងអប់រំ និងក្រសួងសេដ្ឋកិច្ច) • ការសម្របសម្រួលជាមួយមជ្ឈមណ្ឌលដើម្បីប្រព័ន្ធប្រឹក្សាគរុកោសល្យ • � ។	
៣:៣០ រសៀល	**សម្រាកពេលរសៀល**	
	V. ការបិទកម្មវិធីផ្លូះបញ្ជ្រាំង	
៣:៤៥ រសៀល	ការបូកសរុបរាយការណ៍ផែនការសកម្មភាពបន្តរបស់ប្រធានប្រតិបត្តិកម្មវិធី	**លោក អ៊ុល រុន** ប្រធានប្រតិបត្តិកម្មវិធី
៤:៣០ រសៀល	មតិបិទកម្មវិធី ដោយនាយកប្រតិបត្តិអង្គការខេប **លោក សៅ វណ្ណា**	**លោក សៅ វណ្ណា** នាយកប្រតិបត្តិអង្គការខេប
៥:០០ ល្ងាច	បិទកម្មវិធីសិក្ខាសាលាផ្លូះបញ្ជ្រាំង	

សូមរក្សាសិទ្ធិក្នុងការកែប្រែកម្មវិធីក្នុងករណីចាំបាច់ ។

កម្មវិធីនេះរៀបចំដោយ ៖
ក្រុមការងារកម្មវិធីសាលារៀនជំនាន់ថ្មី

បានឃើញ និងឯកភាព

លោក សៅ វណ្ណា
នាយកប្រតិបត្តិអង្គការខេប

List of Student Works Ready for Printing and Distribution to School Libraries

No.	School	Student Author	Book Title	Proposed Cost (1$=40000 Riel)	
១	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ហ្ការ សុកន្ធកញ្ញា	ដួបស្នេហ៍ដែនដីអព្ភូតវិស័យ:	$	5.01
២	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	នាយ នាំឡេង	គ្រាស្នេហ៍សម័យលង្វែក	$	2.33
៣	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ញ្ជើម សុខវិសាល	និក្ខេបបទ	$	2.66
៤	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ណយ សុពល	ករុណវ័យ វិថីស្នេហ៍	$	6.53
៥	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	សុវណ្ណ ម៉ាវិណា	ដួងចន្ទបញ្ញាំចិត្ត	$	3.34
៦	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ពិន រាជ្យបណ្ឌិត	ព្រះរាជនី ភាគ១	$	2.99
៧	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ពិន រាជ្យបណ្ឌិត	ព្រះរាជនី ភាគ២	$	3.21
៨	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ម៉ក់ ម៉ូលីសុភ័ក្តនាថ	បំពេញមេឃ	$	2.59
៩	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ចាន់ សុម៉ានិត	បរាសិត វគ្គ១	$	1.63
១០	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ចាន់ សុម៉ានិត	បរាសិត វគ្គ២	$	2.40
១១	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ធុល ទិក្សុជាន់ថារ័ត្ន	ស្ពាមស្នេហ៍ក្រុងអង្គរ	$	1.38
១២	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ណែក ជាន់ណារង្ស៊	យាគករអាថ៌កំបាំង	$	1.29
១៣	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ណែក ជាន់ណារង្ស៊	យាគករអាថ៌កំបាំងវគ្គ២	$	1.07
១៤	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	សៀន សុខស៊ីល	កំណប់	$	1.23
១៥	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ថោង បញ្ញាទេពី	ជំនួយការគ្រូពេទ្យសំងាត់	$	2.81
១៦	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	គង់ បិតិភាព	អក្សរក្រែមក្រហម	$	2.43
១៧	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ជា មុន្នីកំណា	និស្ស៊ិតពេទ្យ	$	2.13
១៨	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ចក សុខគីម	ញាណទី៦	$	1.39
១៩	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ក្រាបសុភា	បិព្ទ៌អនុស្សតិ ក្លិ៍ម្រាក់	$	2.23
២០	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ហុង បញ្ញារង្ស៊ីចន្ទ&សយ សុជាតា	វេលោ	$	1.92
២១	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ឡេ ពុទ្ធិចិន្តា& ថោង បញ្ញាទេពី	ជីវិត	$	1.52
២២	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	សៀន សុខដ្ឋា&រង្ស៊ ពេជ្រកន្និកា	ស្រមោលក្នុងកញ្ចក់	$	2.32
២៣	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ឈឹម នព្វន្ត	មិត្តភាពកាកី	$	1.92
២៤	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ចក សុខគីម	ជម្រើសដំត្រីមគ្រូវ	$	1.26
២៥	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ធុល ទិក្សុជាន់ថារ័ត្ន	ក្រដាស ស	$	1.22
២៦	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	វិរៈ សុកនី	អគ្គយាគ ឫទ្យាគកម្ម	$	1.19
២៧	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ឈន កឹមណេខា	វគ្គចិត្ត	$	1.17
២៨	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	គង់ សុមារ័ត្តិ	និស្ស៊ីយឫក្រកម្មពៀរ	$	1.65
២៩	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ឈួ លីហ្ការ	អាគមហោព្រលឹង	$	1.48
៣០	វិទ្យាល័យព្រះស៊ីសុវត្ថិ	ហុង បញ្ញារង្ស៊ីចន្ទ& ម៉ែម បញ្ញាទេព	ហ៊ុម ភាគ២	$	1.54

No.	School	Student Author	Book Title	Proposed Cost (1$=40000 Riel)
៣១	វិទ្យាល័យព្រះសីុសុវត្ថិ	យុ៉ន សុភា	ក្បត្រិយ៍កន្និយ៍	$ 2.09
៣២	វិទ្យាល័យព្រះសីុសុវត្ថិ	កែវ សេងហុង	អាថ៌កំបាំងនៃការស្លាប់មនុស្សដប់បីនាក់	$ 1.57
៣៣	វិទ្យាល័យព្រះសីុសុវត្ថិ	ចិត្ត ស្រីយ៉ា	ប្រផ្នូល	$ 1.33
៣៤	វិទ្យាល័យព្រះសីុសុវត្ថិ	ញ្ញឹម សុខាសិរីលក្ខ្មី	រជ្ជទាយាទ	$ 1.68
៣៥	វិទ្យាល័យព្រះសីុសុវត្ថិ	ញ្ញឹម សុខវិសាល	ដួងចន្ទ	$ 1.51
៣៦	វិទ្យាល័យព្រះសីុសុវត្ថិ	វិទ្ធិ រុនវរនាថ	គ្រូពេទ្យ បញ្ចាំស្នេហ៍	$ 2.13
៣៧	វិទ្យាល័យ ព្រែកលៀប	កិន កណ្ណិកា យុ៉ន សុជានរវណ្ណ ម៉ែ សុជាតិ វីន ណារ៉ា ម៉ែ ស្រីនាង និង ឡួន មិឡ្លុង	សន្ធិសញ្ញាទីក្រុងបា៉រីស និងការកសាងប្រទេសឡើងវិញ	$ 1.86
៣៨	វិទ្យាល័យ ព្រែកលៀប	ហេង សុជាតា	ចាមនងជំនឿីសាសនា	$ 1.20
៣៤	វិទ្យាល័យ ព្រែកលៀប	សីុផា អារ៉ុណា, យុ៉ំ ម៉ុលី, សុខ ស្រីម៉ុ	ទួលស្លែង	$ 1.95
៤០	វិទ្យាល័យ ព្រែកលៀប	ឌាយ អៀងលី, រិន សុសារ៉ាមុន្ធី, និង អាគ សុវណ្ណណេត	ទួលស្លែងនិងការធ្វើទារុណកម្ម	$ 1.10
៤១	វិទ្យាល័យ ព្រែកលៀប	វណ្ណ សុក្ស្ក្រ, ពេជ្ញរ គីម៉ហុង, និង ហេង ណាយកង់	រាជធានីភ្នំពេញ	$ 1.08
៤២	វិទ្យាល័យ ព្រែកលៀប	សីុផា អារ៉ុណា, យុ៉ំ ម៉ុលី, ជា វិស្សាវិណា, ស៊ុត ស្រីណ្ណត	ប្រាសាទនៅកំពង់ចាម	$ 1.38
៤៣	វិទ្យាល័យ ព្រែកលៀប	សីុផា អារ៉ុណា, យុ៉ំ ម៉ុលី, ជា វិស្សាវិណា, ស៊ុត ស្រីណ្ណត	ប្រាសាទនៅបាត់ដំបង	$ 1.14
៤៤	វិទ្យាល័យ ព្រែកលៀប	សៀង សុខហេង, ប៊ីនណា ចំរ៉ុង, ចន ច័ន្ទបូរមី, រុន សារ៉ែន និង វា៉ន់ យូ៉ប៊ីន	ព្រះបាទអង្គខ្ចង	$ 1.29
៤៥	វិទ្យាល័យ ព្រែកលៀប	ខេម គីមឡ្លៀង, លាង សុរិយា, សុខ លីហេង, សែម ស្រីវ៉ីន, សាយ គីមវុធ ឡ្លៀង, និង ឯម សិរីវិទ្ធិ	ព្រះមហាក្សត្រសម័យអង្គរ	$ 1.12
៤៦	វិទ្យាល័យ ព្រែកលៀប	វណ្ណ សុម៉ារ៉ុត្ថិ, ជ័ លីបួយ, អ៉ាង ជ៉ីអ៉ូ	ព្រះវិស្ស	$ 1.31
៤៧	វិទ្យាល័យ ព្រែកលៀប	អ៉ុម សុខគីឌីម, ខីម សេងហាក់	សារការ្យបំណាកព្រះបាទស៊ីុ សុវត្ថិនៅវត្តភ្នំ	$ 1.08
៤៨	វិទ្យាល័យ ព្រែកលៀប	ចំរើន កន្និថា, ទក នីភា, គ្ងូរ សូហុង	សេដ្ឋកិច្ចខ្មែរសម័យសាធារណរដ្ឋប្រជាមានិតកម្ពុជា	$ 1.23
៤៤	វិទ្យាល័យ ព្រែកលៀប	សមរិទ្ធិ អនុរក្ស មិគ្គជា ច្រើនងាទៀក	រឿងស្លោនខ្លី	$ 1.76

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៥០	វិទ្យាល័យ ប្រែកល្បៀប	លឹម ហេង	នរណា	$	1.61
៥១	វិទ្យាល័យ ប្រែកល្បៀប	ណារ៉ាក់ ឡ្បាស	កោះចេក	$	3.05
៥២	វិទ្យាល័យ ប្រែកល្បៀប	មិនមាន	នាងពនេចរ	$	1.51
៥៣	វិទ្យាល័យ ប្រែកល្បៀប	ជុន ទិណ្ណ	ពន្លកស្នេហ៍	$	1.19
៥៤	វិទ្យាល័យ ប្រែកល្បៀប	សំអុន មេសា	ប្រជុំរឿងខ្លី	$	1.45
៥៥	វិទ្យាល័យ ប្រែកល្បៀប	រ៉ៃ សម្បត្តិ	SAD ANA	$	1.13
៥៦	វិទ្យាល័យ ប្រែកល្បៀប	មិនមាន	ម្នាស់ត្រប់ត្រងពាក្យសន្យា	$	1.25
៥៧	វិទ្យាល័យ ប្រែកល្បៀប	ពិសី ប៊ូ	ស្នេហ៍ក្នុងអតីតកាល	$	1.16
៥៨	វិទ្យាល័យ ប្រែកល្បៀប	រ៉ៃ សម្បត្តិ	អ្នកលក់ទឹកផ្កោត	$	1.24
៥៩	វិទ្យាល័យ ប្រែកល្បៀប	ហេង សុជាតា	កម្មស្នេហ៍បុស្បា	$	3.26
៦០	វិទ្យាល័យ ប្រែកល្បៀប	មិនមាន	ក្រអៅល្ហុក	$	1.50
៦១	វិទ្យាល័យ ប្រែកល្បៀប	ហេង ពេជ្រប្រាថ្នា	ពិភពរឿងខ្លីៗ	$	1.76
៦២	វិទ្យាល័យ ប្រែកល្បៀប	ទៀង ស្រីណុច	ពិភពរឿងនិទាន	$	3.40
៦៣	វិទ្យាល័យ ប្រែកល្បៀប	ដោក សុវណ្ណវឌ្ឍនា	ភ្លើងក្រហម	$	2.21
៦៤	វិទ្យាល័យ ប្រែកល្បៀប	ក្រុមស្នេក្ចូ	ការអប់រំពីនេះ ពីនោះ	$	1.06
៦៥	វិទ្យាល័យ ប្រែកល្បៀប	ទ្រី វណ្ណា	មនសិការត្រូ	$	2.66
៦៦	វិទ្យាល័យ ប្រែកល្បៀប	បាន វង្សា	ខ្សែជីវិត	$	1.13
៦៧	វិទ្យាល័យ ប្រែកល្បៀប	អ៊ិក ចាន់ម៉ាន់ុក និង រឿង កញ្ញា	ហួសពេល	$	1.22
៦៨	វិទ្យាល័យ ប្រែកល្បៀប	ជារ ច័ន្ទវម្បុនាថ និង រិទ្ធ ស្រីនិ និង ស្ចីង សុភា	និស្ស័យស្នេហ៍	$	1.16
៦៩	វិទ្យាល័យ ប្រែកល្បៀប	មិនមាន	ផ្ញើស្នេហ៍នាងវិចិត្រករ	$	2.08
៧០	វិទ្យាល័យ ប្រែកល្បៀប	ក្រុមសិស្សថ្នាក់ទី៨	រឿងប្រតិដ្ឋខ្លីៗ(ជីវិតនាងសុជារ៉...)	$	1.32
៧១	វិទ្យាល័យ ប្រែកល្បៀប	ក្រុមសិស្សថ្នាក់ទី៩	អក្ខបទល្អូនខ្លី-ម៉ាក់ខុសហើយ	$	1.17
៧២	វិទ្យាល័យ ប្រែកល្បៀប	វម្បុនាថ,សុភា,ស្រីនិ	រឿងភ័យខ្លាច	$	1.11
៧៣	វិទ្យាល័យ ប្រែកល្បៀប	ឡ្បូច សុជីតា និងសេង វឌ្ឍរ៉ា	កោះស្នេហ៍	$	1.14
៧៤	វិទ្យាល័យប្រែកអញ្ចាញ	ធេង វណ្ណាស្រេង,..ធន សុមនា	ប្រដាប់របស់ឈ្មោមរបស់មនុស្ស	$	1.70
៧៥	វិទ្យាល័យប្រែកអញ្ចាញ	ជល្លា ស៊ីយ៉ា,..អេង គីមប៊ុ	សត្តនិងវក្តជាតិដែលកំណាងឱ្យអក្តសញ្ញាណជាតិខ្មែរ	$	1.35

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៧៦	វិទ្យាល័យព្រែកអញ្ចាញ	ឈៀង ម៉េងសៀ...ថេង ចំប៉ា	ប្រដាប់បង្កើនសិប្បនិម្មិត	$ 1.74
៧៧	វិទ្យាល័យព្រែកអញ្ចាញ	យឿន ម៉ារី	ខ្លុំខ្លាំងព្រោះបញ្ចាចិត្តវិទ្យា	$ 1.65
៧៨	វិទ្យាល័យព្រែកអញ្ចាញ	ក្រុមសិស្សថ្នាក់ទី១២(B1)	ជីវប្រវត្តិអ្នកនិពន្ធ	$ 1.44
៧៩	វិទ្យាល័យព្រែកអញ្ចាញ	យឿន ម៉ារី	រឿង:ព្រោះឯងជាមិត្ត	$ 2.39
៨០	វិទ្យាល័យព្រែកអញ្ចាញ	យឿន ម៉ារី	រឿង:ព្រះកាយទុក្ខ	$ 3.51
៨១	វិទ្យាល័យព្រែកអញ្ចាញ	ថុល សៀកហ៊ុយ និង ងាយ លីម៉ុី	រឿង: ដំណើរឆ្នោះទៅរកការពិត	$ 1.66
៨២	វិទ្យាល័យព្រែកអញ្ចាញ	យឿន ម៉ារី	ត្រកូលអ្នកនិពន្ធ	$ 1.22
៨៣	វិទ្យាល័យព្រែកអញ្ចាញ	ឈាន់ រូចលេង និងគង់ សារ៉ាត់ វឌ្ឍនា	លើសពីមិត្ត	$ 1.33
៨៤	វិទ្យាល័យព្រែកអញ្ចាញ	ក្រុមក្លិបនិពន្ធ	សៀវភៅក្លិបនិពន្ធ	$ 1.94
៨៥	វិទ្យាល័យព្រែកអញ្ចាញ	សារឿង សុវណ្ណារី, យាន់ អ៊ូហ៊ា និង ស៊ុង សុជាតិកា	ប្រើតេឡេ បញ្ជា IR RE-MOTE SENSOR បញ្ជា បិទបួ បើកអំពូល	$ 1.02
៨៦	វិទ្យាល័យព្រែកអញ្ចាញ	ក្រុមសិស្សថ្នាក់ទី១១ NGS-C2	ផ្ទះសុវត្ថិភាព ប្រើ PIR SENSOR	$ 1.01
៨៧	វិទ្យាល័យព្រែកអញ្ចាញ	ក្រុមសិស្សថ្នាក់ទី១២ NGS-P1	ផ្ទះឆ្លាតវៃ SMART HOME	$ 1.00
៨៨	វិទ្យាល័យព្រែកអញ្ចាញ	ក្រុមសិស្សថ្នាក់ទី១០ NGS-P1	STEM ROAD	$ 0.99
៨៩	វិទ្យាល័យព្រែកអញ្ចាញ	ខេង សុធារិទ្ធិ និង សមាជិកក្រុម	ប្រវត្តិលោក ប៊ីល ហ្គេត	$ 1.11
៩០	វិទ្យាល័យព្រែកអញ្ចាញ	ក្រុមសិស្សថ្នាក់ទី១០ NGS-P2	ប្រវត្តិរបស់លោក អ៊ីឡុន ម៉ាស់(Elon Musk)	$ 1.01
៩១	វិទ្យាល័យព្រែកអញ្ចាញ	ក្រុមសិស្សថ្នាក់ទី១១ NGS-P1	ទស្សនវិទ្យាព្រះពុទ្ធ សាសនា	$ 1.37
៩២	វិទ្យាល័យព្រែកអញ្ចាញ	ក្រុមសិស្សថ្នាក់១១ NGS-P1	ប្រាសាទអង្គរវត្ត	$ 1.24
៩៣	វិទ្យាល័យព្រែកអញ្ចាញ	ក្រុមសិស្សថ្នាក់ទី១០ NGS	ព្រះចៅអធិរាជ អាឡិច សាន់ដឺ	$ 1.16
៩៤	បឋមស្វាយព្រហូត	ក្លិបតែងនិពន្ធ	ក្មេនតែងកំណាព្យ	$ 1.12
៩៥	បឋមស្វាយព្រហូត	ក្រុមសិស្សប្រវត្តិសាស្ត្រ	ប្រវត្តិ វត្តស្វាយព្រហូត	$ 1.05
៩៦	វិទ្យាល័យគោកព្រីង	ក្រុមសិស្សក្លិបតែងនិពន្ធ	ស្នេហ៍ឆ្លងសម័យកាល	$ 2.22
៩៧	វិទ្យាល័យគោកព្រីង	ក្រុមស្រាវជ្រាវ	កត្ទិពលជំនឿសាសនា ព្រាហ្មណ៍ក្នុងសង្គមខ្មែរ	$ 1.22
៩៨	វិទ្យាល័យគោកព្រីង	ក្រុមសិស្សថ្នាក់ទី៩និងទី ១០	ទ្រឹស្ដីសំខាន់ៗនៃទទស្សន៖ វិទ្យាអប់រំ	$ 4.33

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៩៩	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	សមាជិកក្លិ្បបនិពន្ធ	កម្រងរឿងខ្លី និងស្មៅដៃ គែងកំណព្យ	$	1.78
១០០	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ម៉េង ហេងវ៉ាំ	កម្រងរឿង ប្រលោមលោកខ្លី	$	2.18
១០១	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ម៉េង ហេងវ៉ាំ	ស្នេហាព្រេងនិទាន	$	2.67
១០២	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ផា លីដា និងក្រុមសិស្ស	កម្រងស្មៅដៃកំណព្យ	$	1.16
១០៣	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្ស	ការសិក្សាអំពីភាពផ្សេងៗ ក្នុងប្រពន្ធ័ព្រះអាទិត្យ	$	1.15
១០៤	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្ស	ការវិត្គន់នៃដង់ទ្បើលើផ្ទះៈ ម្រេញកង្វាល	$	1.02
១០៥	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្ស	ពិធីបុណ្យសពខ្មែរកស្តាម	$	1.04
១០៦	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្ស	ក្រូចឆ្មារអគ្គិសនី	$	0.95
១០៧	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្ស	បំណិតអេតាណុលចេញពី ស្រាស	$	0.96
១០៨	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្សថ្នាក់ទី១០ NGS-C1	ដូងប្រេង	$	1.03
១០៩	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្សថ្នាក់ទី១១ NGS-C	ការបូរពណ៌វេទមន្ត	$	1.00
១១០	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្សថ្នាក់ទី៩ NGS-P1	សម្រង់វិញ្ញាសារគីមីថ្នាក់ទី ៩	$	1.88
១១១	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្សថ្នាក់ទី១១ NGS-C	ការធ្វើអគ្គិសនីវិភាពសួ្ឌ្យ ក្ដៅ	$	1.04
១១២	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្ស	ការធ្វើគេស្ថខស្ដ៊ូនពន្លត់ អគ្គិសភ័យ	$	0.95
១១៣	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្សថ្នាក់ទី១០ NGS-B1	ចំហេះប្រេងលើផ្ការស្រស់	$	0.95
១១៤	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្សថ្នាក់ទី១០ NGS-B1	ផ្កាំបាញ់មូសធម្មជាតិ	$	0.95
១១៥	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្សថ្នាក់ទី១០ NGS-B1	ការផលិតសាប៊ូលាងចាន	$	0.98
១១៦	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្សថ្នាក់ទី១០ NGS-B1	ទ្បើនក្រអូបចេញពីបេះ ដូង	$	0.94
១១៧	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្សគីមី	វិញ្ញាសា និងចម្លើយ គីមី ថ្នាក់ទី៩	$	1.94
១១៨	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្សថ្នាក់ទី ១០ C1	ទង្ធើ និងអគ្គសញ្ញាណកម្ម អាសេទិទ្បេន	$	1.00
១១៩	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជី កង	ក្រុមសិស្សជីវវិទ្យា	ការផលិតជីកំប៉ុស្តកោក	$	1.00

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១២០	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជើកង	ក្រុមសិស្សជីវវិទ្យា	របៀបថែទាំដំណាំល្ពៅ	$ 1.05
១២១	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជើកង	ក្រុមសិស្សភូមិ-ប្រវត្តិ ក្រុមទី៣	រូបសំណាកព្រះបាទជ័យ វរ្ម័នទី៧	$ 1.00
១២២	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជើកង	ក្រុមសិស្សភូមិ-ប្រវត្តិ	ប្រវត្តិទេដ៍ជាតិប្រទេស កម្ពុជា	$ 0.98
១២៣	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជើកង	ក្រុមសិស្សភូមិ-ប្រវត្តិ	វាលពិឃាតត្តួអូរក្រក្តន	$ 0.98
១២៤	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជើកង	ក្រុមសិស្សភូមិ-ប្រវត្តិ	បុណ្យខែវ៉ាម៉ាឌន	$ 0.98
១២៥	វិទ្យាល័យ ហ៊ុន សែន ៣ាងជើកង	ក្រុមសិស្សភូមិ-ប្រវត្តិ	ការកាប់បំផ្លាញព្រៃឈើ	$ 0.96
១២៦	គ្រូវិទ្យាល័យហ៊ុន សែនកំពង់ ចាម	ជាត ភៀក	វិប្បដិសារី	$ 1.06
១២៧	វិទ្យាល័យហ៊ុន សែន កំពង់ ចាម	ហ៊ាប ស្រីហ័ង ម៉េង ចន្ទា ហ្សៀន វគនា និង ផែន ភាពបញ្ញា	កម្រងរឿងខ្លី	$ 1.85
១២៨	វិទ្យាល័យហ៊ុន សែន កំពង់ ចាម	ក្រុមសិស្សភ្លីបវិទ្យាសាស្ត្រ	ការឌលិតក្រោស	$ 1.02
១២៩	វិទ្យាល័យហ៊ុន សែនកំពង់ចាម	ជាត ភៀក	ខ្ញុំស្រឡាញ់	$ 1.06
១៣០	វិទ្យាល័យហ៊ុន សែន កំពង់ ចាម	ក្រុមសិស្ស	គីមីអាស៊ីត	$ 1.08
១៣១	វិទ្យាល័យហ៊ុន សែន កំពង់ ចាម	ស៊ីម សុយ៉ាលិ	ដើម្បីគ្រួសារ	$ 2.09
១៣២	វិទ្យាល័យហ៊ុន សែន កំពង់ ចាម	ស៊ី ស្រីរៀម	ផ្នើមជាមិត្តបញ្ចប់ជាអ្នក ដទៃ	$ 1.08
១៣៣	វិទ្យាល័យហ៊ុន សែន កំពង់ ចាម	ក្រុមរួម	ចេតនាសម័ន្ធភ្លីបប្រវត្តិ វិទ្យា	$ 0.99
១៣៤	វិទ្យាល័យហ៊ុន សែន កំពង់ ចាម	ក្រុមរួម	ចេតនាសម័ន្ធភ្លីបប្រវត្តិ វិទ្យា	$ 1.03
១៣៥	វិទ្យាល័យហ៊ុន សែន កំពង់ ចាម	អ៊ុក នីតា	រឿងរបស់ អ៊ុក នីតា	$ 1.43
១៣៦	វិទ្យាល័យហ៊ុន សែន កំពង់ ចាម	ក្រុមសិស្សថ្នាក់ទី១១ ខ	ផ្ទះឆ្លាតវៃ SMART HOME	$ 1.08
១៣៧	បឋមអនុវត្តន៍ ហ៊ុន សែន	ក្រុមទី១នៃក្លីបប្រវត្តិវិ ញ្ញាយា	ប្រវត្តិសង្ខេបរបស់ រមណីយដ្ឋានភ្នំប្រុសភ្នំស្រី	$ 1.07
១៣៨	បឋមអនុវត្តន៍ ហ៊ុន សែន	ក្រុមទី២នៃក្លីបប្រវត្តិវិ ញ្ញាយា	ភ្នំសុវណ្ណគិរីរគន: ហៅភ្នំ ភ្នំប្រុស	$ 1.01
១៣៩	បឋមអនុវត្តន៍ ហ៊ុន សែន	ក្រុមទី៣នៃក្លីបប្រវត្តិ វិទ្យា	ដំណើរទស្សនកិច្ចភ្នំប្រុស ភ្នំស្រី	$ 1.03
១៤០	បឋមអនុវត្តន៍ ហ៊ុន សែន	រៀបចំដោយសមាជិក ក្រុម	Do you speak English	$ 1.05
១៤១	បឋមអនុវត្តន៍ ហ៊ុន សែន	រៀបចំដោយសមាជិក ក្រុម	ក្លីបថតរូប	$ 1.02
១៤២	បឋមអនុវត្តន៍ ហ៊ុន សែន	រៀបចំដោយសមាជិក ក្រុម	ក្លីបភាពយន្ត	$ 0.99
១៤៣	បឋមអនុវត្តន៍ ហ៊ុន សែន	រៀបចំដោយសមាជិក ក្រុម	ក្លីបសិល្បៈ	$ 0.99

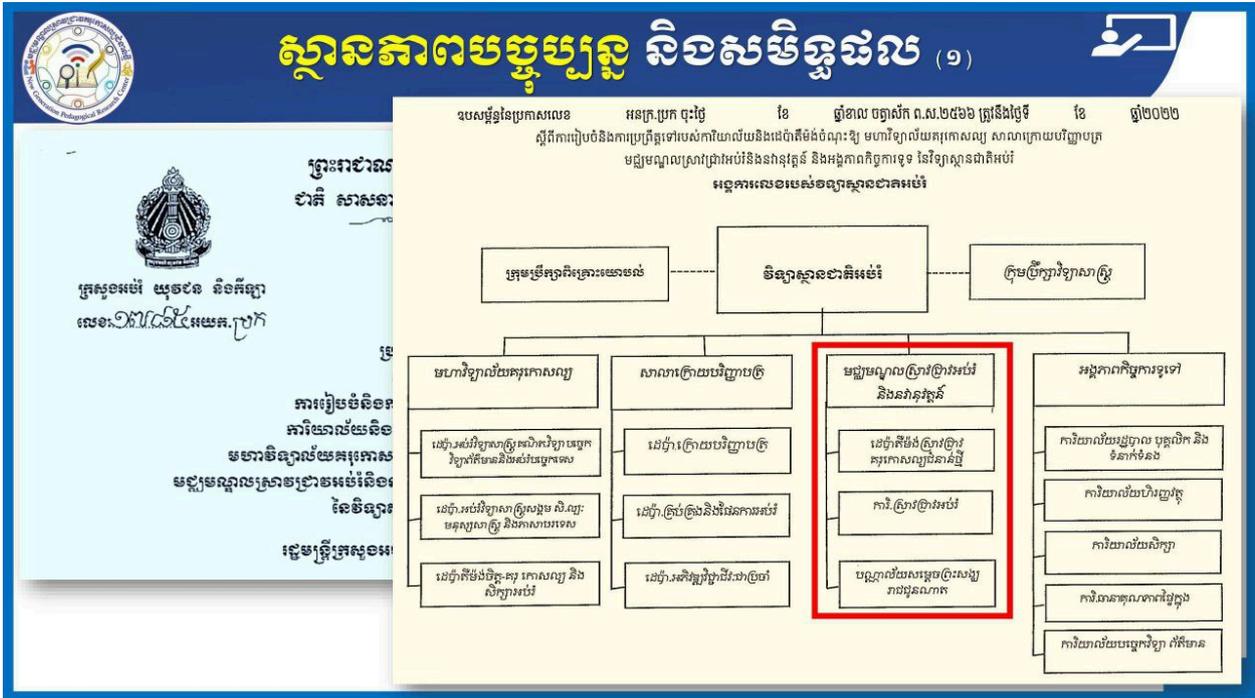| No.	School	Student Author	Book Title	Proposed Cost (1$=40000 Riel)
១៥៤	បឋមអនុវត្តន៍ ហ៊ុន សែន	រៀបចំដោយសមាជិកក្រុមទី២	ក្លិបសិល្បៈ	$ 0.99
១៥៥	បឋមសម្ដេចព្រះរាជអគ្គមហេសី នរោត្តមមុនីនាថសីហនុ	រៀបចំដោយក្រុមប្រវត្តិសាស្ត្រក្រុមទី១	ប្រវត្តិព្រះប្រាង្គ	$ 1.14
១៥៦	បឋមសម្ដេចព្រះរាជអគ្គមហេសី នរោត្តមមុនីនាថសីហនុ	រៀបចំដោយក្រុមប្រវត្តិសាស្ត្រក្រុមទី២	ប្រវត្តិវត្តងហារិវ័ក្សារាជនី	$ 1.14
១៥៧	បឋមសម្ដេចព្រះរាជអគ្គមហេសី នរោត្តមមុនីនាថសីហនុ	ក្រុមសិស្ស	ការតែងកំណាព្យ	$ 1.12
		Total		**$ 230.31**

ANNEX 4:
Summary of Investments Made in New Generation Primary Schools

Educational Facilities	Total	Already Renovated/New		Renovated This Year	Opera-tional	Remarks
Akhea Mahasei PS		*No.*	*%*	*No.*	*(Yes/No)*	
Classrooms	36	36	100%	0	Yes	6 rooms need roof repair, planned for 2024
Offices	3	3	100%			
• Administration	2	2		0	Yes	
• Mentors	1	1		0	Yes	
• Faculty Room	0	0		0	Yes	
Special Purpose Rooms	9	9	100%			
• Library	1	1		0	Yes	Tablets: 79; Research Stations: 2; Television: 1
• ICT Lab(s)	1	1		1	Yes	Student Workstations: 36
• Science Lab	1	1		0	Yes	Equipped with materials (yes-some)
• English Room	1	1		0	No	Equipped with materials (no)
• Life Skills Room	0	0		0	--	
• Bio-Garden	1	1		0	Yes	
• Auditorium	1	1		1	No	Seating Capacity: 81 (Opening in August 2023)
• Clinic	1	1		0	Yes	Equipped with materials (yes)
• Canteen	0	0		0	--	
• Student Council	1	1		0	Yes	
• Studio Room	1	1		0	Yes	Equipped with materials (yes)
Angkor Ban PS		*No.*	*%*	*No.*	*Yes*	
Classrooms	15	11	73%	0	Yes	Ceilings need repair in 8 classrooms
Offices	2	2	100%			
• Administration	1	1		0	Yes	
• Mentors	1	1		0	Yes	
• Faculty Room	0	0		0	--	
Special Purpose Rooms	7	7	100%	1		
• Library	1	1		1	Yes	Tablets:45 (30 from Ministry & 15 from NGS) Television: 1; Research Stations: 1
• ICT Lab(s)	1	1		0	Yes	Student Workstations: 39 (Broken2)(13 from Ministry & 26 from NGS)
• Science Lab	1	1		0	Yes	Equipped with materials (yes, But not enough)
• English Room	0	0		0	--	Equipped with materials (yes/no)
• Life Skills Room	0	0		0	--	Equipped with materials (yes/no)
• Bio-Garden	1	1		0	Yes	
• Meeting Hall	1	1		0	Yes	Seating Capacity: 80
• Clinic	1	1		0	Yes	Equipped with materials (yes)
• Canteen	0	0		0	--	
• Student Council	1	1		0	Yes	
Svay Prahuot PS		*No.*	*%*	*No.*	*Yes*	
Classrooms	13	13	100%	3	--	Rooms still in need of repairs/Completed in June-July 2023
Offices	2	2	100%	0		
• Administration	1	1		0	--	
• Mentors	1	1		0	--	
• Faculty Room	0	0		0	--	
Special Purpose Rooms	8	8	100%	1		
• Library	1	1		0		Tablets: 44; Research Stations: 2, Television: 1
• ICT Lab(s)	1	1		0		Student Workstations: 35
• Science Lab	1	1		0		Equipped with materials (yes)
• English Room	1	1		0		Equipped with materials (yes)
• Life Skills Room	0	0		0		Equipped with materials (no)
• Bio-Garden	1	1		0		
• Auditorium	1	1		1		Seating Capacity: 80 (Opening in August 2023)
• Clinic	1	1		0		Equipped with materials (no)
• Canteen	1	1		0		
Demonstration School		*No.*	*%*	*No.*	*Yes*	
Classrooms	15	15	100%	0	Yes	13 by NGS, 2 by MoEYS
Offices	1	1	100%			
• Administration	1	1		0	Yes	
• Mentors	0	0		0	Yes	
• Other	0	0		0	Yes	
Special Purpose Rooms	7	7	100%	1		
• Library	1	1		0	Yes	Tablets: 43; Research Stations: 1, TV :1
• ICT Lab(s)	1	1		0	Yes	Student Workstations: 36
• Science Lab	0	0		0	Yes	Equipped with materials (no)
• English Room	0	0		0	Yes	Equipped with materials (no)
• Life Skills Room	1	1		1	Yes	Equipped with materials (yes)

Educational Facilities	Total	Already Reno-vated/New		Renovated This Year	Opera-tional	Remarks
• Bio-Garden	1	1		0	Yes	
• Auditorium	1	1		0	Yes	Seating Capacity: 78
• Clinic	1	1		0	Yes	Equipped with materials (yes)
• Canteen	1	1		0	Yes	

ANNEX 5:
New Organizational Structure at NIE and Change in Status of New Generation Pedagogical Research Center