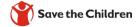


Supply Chain Analysis

Cambodia

June 24, 2022

























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LIST OF ACRONYMS AND ABBREVIATIONS

ACR All Children Reading

ADB Asian Development Bank

AFD Agence française de développement

ASEAN Association of Southeast Asian Nations

BETP Basic Education Textbook Project

BFC Books for Cambodia (NGO)

BSDP Book Sector Development Plan

CC Creative Commons licensing

CCOSC Cambodian Consortium for Out of School Children

CDMP Capacity Development Master Plan

CDPF Capacity Development Partnership Fund

CWD children with disabilities

DCD Department of Curriculum Development

DEMIS Department of Education Management Information Systems

DIT Department of Information Technology

DOE District Office of Education

ECE Early Childhood Education

EGR early grade reading

EGRA Early Grade Reading Activity/Assessment

EMIS Education Management Information System

ERMs essential reading materials

ESDG Education Sector Donor Group

EU European Union

GBA Global Book Alliance

GBAIA Global Book Alliance in Action

GDL Global Digital Library

GPE Global Partnership for Education

IEC information, education, and communication

KAPE Kampuchean Action to Promote Education

KIND Khmer Institute for National Development

IBDWG Joint Book Development Working Group

MENAP Multilingual Education National Action Plan

MoEYS Ministry of Education, Youth and Sport

MLE Multi-Lingual Education

NEP NGO Education Partnership

NGO nongovernmental organization

NGS New Generation Schools

OI Open Institute

OPTD Office of Planning & Textbook Distribution

PDH Publishing & Distribution House

PED Primary Education Department

POE Provincial Office of Education

PPF per pupil expenditure

PTR pupil-teacher ratio

RBF results-based financing

RFP request for proposal

RFQ request for quotes

RGC Royal Government of Cambodia

RtR Room to Read (NGO)

SCA supply chain analysis

Sida Swedish International Development Agency

SRMs supplementary reading materials

SSBs supplementary student books

SSC School Support Committee

STEPCam Strengthening Teacher Education Programs in Cambodia

TLMs teaching and learning materials

TTO Thontean Obrom (Educational Resources in Khmer)

UN United Nations

USAID United States Agency for International Development

VAT value-added tax

NB: For the sake of brevity and to avoid repetition, the word textbook as used in this report includes the relevant accompanying teachers' guide(s).

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The study was led by USAID's Global Book Alliance in Action contract, which supports the work of the Global Book Alliance and is implemented by EDC, under the direction of Dr. Simon James, Chief of Party and Researchers/Writers Julian Watson, Julianna Nielsen, Roel de Haas, Mong Kimna and Margaret Marcotte. EDC team members also included Ricardo Perez-Pineda, Caitlin Flynn, and Brianna Reed. The Khmer translation and page layout was provided by Socheata Huot. We are deeply appreciative of the contributions of all team members.

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EXECUTIVE SUMMARY AND HIGH-LEVEL RECOMMENDATIONS

This book supply chain analysis (SCA) for Cambodia was conducted on behalf of the Global Book Alliance (GBA) by the USAID Global Book Alliance in Action (GBAIA) project. The SCA was commissioned to inform the work of the GBA as well as that of the Cambodian Ministry of Education, Youth and Sports (MoEYS), USAID/Cambodia, and other key in-country partners and stakeholders. For the purposes of the analysis, the book supply chain is defined as a six-phase process:

- 1. Planning and forecasting
- 2. Title development
- 3. Publishing and printing
- 4. Procurement and purchasing
- 5. Distribution management
- 6. Active use

FIGURE 1. THE SIX PHASES OF THE BOOK SUPPLY CHAIN



There are many different definitions of **essential reading materials**, and what is considered *essential* at one stage of learning will be less so for another. For the purposes of this report, we use the following terms and definitions, per USAID guidance:

Decodable, leveled, and supplementary readers (collectively described as essential readers) are all required elements for reading acquisition, but each plays a different role.

- Decodable readers are reading materials in which all words are consistent with the letters and corresponding phonemes that the reader has been taught. These readers are sequenced in accordance with the order in which letters are taught in the school curriculum, and progressively increase in difficulty.
- Leveled readers are a set of books organized by level of difficulty, based on the complexity of the words, sentences, content, and other factors.
- Supplementary readers are those used for reading practice; they may not be decodable or leveled, and they do not tie directly to the school curriculum.¹

In addition, we include in this category the following books specific to Cambodia: **Supplementary student books** developed by the USAID *All Children Reading program* in Cambodia. This program supports textbook use through a modern, simplified pedagogical approach based on repetitive patterns that strengthen reading and writing.

1 Definitions are adapted from USAID, 2020 Compendium of Standard PIRS for Education Programming.

A book supply chain analysis for Cambodia was carried out by researchers in USAID's GBAIA project in January and February 2020. The analysis included both desk and field research. The research team interviewed and gathered information from a variety of stakeholders, including officials from the Royal Government of Cambodia (RGC), staff from donor organizations and their implementing partners, publishers, authors, illustrators, printers, distributors, and primary school teachers.

Because the MoEYS and others concentrate almost exclusively on textbooks in Cambodia, there is a lack of data available on essential reading materials (ERMs). Furthermore, in Cambodia, leveled and decodable readers do not exist, with the few exceptions noted in this report. This SCA report thus examines the overall status of both textbooks and ERMs, but focuses, from necessity, primarily on the textbook provision process. When we speak of ERMs in the report, we are in general referring to supplementary readers.

The multiple challenges relating to the provision of books in Cambodia result from the fact that steps in the supply chain, from planning and forecasting through to active book use and management in schools, are not implemented in a coordinated manner.

Although in 2016, Curriculum Frameworks for all subjects were approved, as were syllabi in 2018, as of the writing of this report, no new textbooks have been created, due to budgetary constraints. To implement the new curriculum, 52 textbooks will be revised to match it as closely as possible.

No central government funding is allocated for ERMs. The purchase of ERMs is left to each school's operations budget fund, which must cover a range of school expenses and cannot consistently ensure an adequate provision of books. Moreover, there is a lack of understanding by parents on the significant role that ERMs play in reading, which reduces the level of market demand for them. Cambodia has a very limited private publishing sector and thus a limited supply of ERMs. This publishing gap leads to an overdependence on nongovernmental organizations (NGOs) to supply the ERM market. Donor-funded projects are not able to provide materials across the entire country, and consequently, they focus on specific localities, which in turn limits access for students outside of these localities. The situation is further complicated by a Cambodian culture that is historically oral and not predisposed to books and reading, which is not considered a recreational activity but a practical one.²

Addressing these shortfalls throughout the book supply chain—including ERMs as part of the government procurement policy—will require centralized oversight through a dedicated department within the MoEYS. Although ministerial policy is that the curriculum is open to private publishers to develop textbooks, the practice is still that all development of textbooks is done by the parastatal Publishing and Distribution House (PDH). Opening up the procurement process to more competition while providing training to private publishers to increase their capacity would not only stimulate sector activity, thereby potentially expanding book access more broadly, but it would also allow for budgetary resources to be allocated to the production of ERMs through cost reductions that result from private sector efficiencies.

There are positive measures that have been undertaken that will lead to improved access to materials. One example is the significant progress that has been made through MoEYS' recent implementation of the automated Track and Trace system (TnT, a management system for textbook delivery). Initially funded by the World Bank Enhancing Book Distribution in Cambodia Project,³ the Track and Trace system allows for more efficient and timely planning and forecasting. The Track and Trace system will have a tremendous impact on advancing this critical phase of the supply chain.⁴

Donors have been actively engaged in producing innovative types of materials in Khmer to teach reading and math. All Children Reading (ACR) Cambodia develops programs and resources that aim to provide meaningful access to all students, and it has introduced supplementary student books (SSBs), which are structured decodable materials that complement and bridge textbooks through supplementary reading materials (SRMs) and guides for teaching activities. Although both decodable

² Jarvis, et al. Publishing in Cambodia.

³ The World Bank, "Track and Trace in Cambodia."

⁴ For information on the Trace and Track system, see SCA Phase I: Planning and Forecasting.

and leveled books are currently rare, Room to Read and Kampuchean Action to Promote Education (KAPE) have been instrumental in encouraging the creation of leveled readers. KAPE has produced an app that can potentially be used to create leveled text using empirical analysis.

Other efforts include significant investments in library modernization efforts to increase access to books and educational apps, in mobile and nontraditional libraries, as well as capacity-building efforts in the publishing of ERMs.

High-Level Recommendations

- 1. The MoEYS, education sector donors, and book sector stakeholders (including printers, publishers, school-level actors, and civil society) should develop a long-term Book Sector Development Plan (BSDP) or similar sector planning document. The plan may be developed within the existing donor coordination group through the establishment of a Joint Book Development Working Group (JBDWG) or a related coordination structure that builds on existing mechanisms, and it should be well-known and understood by publishers and other book sector actors. The BSDP's goal would be to engage the private sector in building a sustainable book supply over the next 20 years, to be ultimately funded by RGC, and to allow donors to develop exit strategies.
- 2. The BSDP should include an analysis of the different models of public and private sector roles to address gaps in the primary book supply chain and the associated capacity-building needs for discussion and recommendations with the Education Sector Donor Group (ESDG), MoEYS, and other book sector stakeholders. An extensive review of the responsibilities of each organization involved in the textbook publishing process should be carried out to create a sector that is open, efficient, and transparent, as well as one that stimulates competition and growth—including ministerial responsibilities in curriculum development and textbook authorship.
- **3.** The donor community, through the JBDWG, should coordinate the resulting capacity-building requirements of stakeholders indicated by the BSDP, including those referenced in this report.

SUMMARY OF RECOMMENDATIONS BY BOOK **UPPLY CHAIN PHASE**

GBA Recommendations: Planning and Forecasting

GBA recommends:

- That increases in future student enrollment, rather than reliance on current enrollment data, be considered in projecting book quantities.
- That teachers and school directors be encouraged to accurately report book losses without fear of reprisals for what is a common occurrence in book supply to students.
- That planning and budgeting include ERMs and not just textbooks.
- That the Track and Trace system be utilized and championed by all sector stakeholders. Originally funded by the World Bank, the Track and Trace data collection system both facilitates and monitors the budgeting, procurement, and disbursement requirements of MoEYS. PDH has been handling all running costs of the system, and PDH has financed the Track and Trace system's continued rollout to all provinces by 2022.
- That donors provide coordinated support to MoEYS, as needed and in coordination with PDH's financing, of an expanded rollout of the Track and Trace system. This includes immediately assessing the training needs of all personnel required for system implementation and drafting an action plan based on these findings.

GBA Recommendations: Title Development

GBA recommends:

- That training in the creation of ERMs be given to NGOs and private sector publishers.
- That library standards and graded books be coordinated with the six levels of primary school study and all parties agree to and apply this grading standard in ERM development.
- That all donor-funded ERMs be copyrighted with the Creative Commons license "CC BY"⁵ (or similar open licensing) and made available electronically to allow for decentralized reproduction.

As defined on the Creative Commons website: "This license lets others distribute, remix, adapt, and build upon your work, even commercially, as long as they credit you for the original creation. This is the most accommodating of licenses offered. Recommended for maximum dissemination and use of licensed materials." https://creativecommons.org/licenses/ (Used by permission under Creative Commons Attribution 4.0 International license.)

- That a comparative cost analysis be carried out of all production costs to identify price differences paid by NGOs and MoEYS to help identify potential opportunities for cost savings.
- That a thorough market analysis be carried out on students reading needs, what they want in books, and the price parents are willing to pay. Such an evaluation is essential in developing strategies to promote a reading culture.
- That MoEYS be supported in creating national standards that define both reading grades and literacy, with the Department of Curriculum Development (DCD) defining these standards.

GBA Recommendations: Publishing and Printing

GBA recommends:

- That as part of the high-level recommendation to analyze different models of public and private sector roles in book provision systems, an extensive review of the responsibilities of each organization involved in the textbook publishing process be carried out to create a sector that is open, efficient, and transparent and one that stimulates competition and growth—including ministerial responsibilities in curriculum development and textbook authorship.
- That as part of this analysis, the MoEYS consider transitioning the PDH away from publishing textbooks to concentrate on printing and distributing, including ERMs. The DCD would set the curriculum and standards, and private publishers would compete in tenders to publish textbooks and ERMs.
- That as part of this analysis, the MoEYS could also consider sourcing the printing of its textbooks in an open, competitive market. As with the quality of content, the DCD should be charged with quality control of printing.
- That if the above mentioned out-sourcing of printing by the MoEYS is achieved, the PDH should be restructured and undertake the following measures to remain viable:
 - >> Invest in modernization for price competitiveness with capital raised by (1) privatization, (2) partial flotation on the Cambodia Securities Exchange, and (3) selling its very valuable premises in the center of Phnom Penh and moving to a provincial industrial site.
- That elimination of the 10% VAT⁶ and 7.7% import duties on raw materials (paper) should be considered.
- That a pool of writers be established and trained for all subjects.
- That MoEYS commission an analytical report on the total project costs for producing new curriculum compliant textbooks in each subject for all primary school grades 1–6.

⁶ VAT means value-added tax.

GBA Recommendations: Purchasing

GBA recommends:

- That the government review its procurement laws and consider including international competitive bidding on all contracts of more than \$100,000, to ensure pricing efficiency.
- That the printing industry lobby the General Department of Customs and Excise (GDEC) of Cambodia for a tax refund system on paper used to produce education materials.
- That MoEYS allocate a budgeted library grant for each primary school to be paid directly to the school operational budget and ring-fenced for the purchase of ERMs.

GBA Recommendations: Distribution Management

GBA recommends:

- That distribution be open to an independent, private sector distributor and procured through national competitive bidding to ensure best value.
- That GPS coordinates be linked to all schools within the Education Management Education System (EMIS), and all packages labeled with bar codes to facilitate tracking.
- That in-time training be developed for all Track and Trace system users, of all staff levels, with adequate support provided.

GBA Recommendations: Active Use

GBA recommends:

- That training and exposure through social media engagement be carried out to emphasize the need for increasing ERMs in the primary classrooms and advocating for children with disabilities (CWD). The energy and commitment of the School Support Committee (SSC) could thus be galvanized to advocate for literacy and inclusion within Cambodia's education objectives.
- That book conservation, fortifying covers and binding, be taught to children in classrooms.
- That schools ensure that libraries are well-stocked and monitored and that books are available for children to take home.
- That teachers and parents be instructed, through literacy advocacy activities such as radio messages and workshops, on the use of ERMs (for both classroom and home) and basic library organization.

INTRODUCTION

High-quality texts and a range of reading materials are key elements required to foster the acquisition of reading skills for all students.⁷ To ensure that every student learns to read, not only are textbooks required, but every student must also have access to essential reading materials (ERMs) in local languages. Per the U.S. Agency for International Development (USAID) guidance,⁸ a copy of every decodable text, whether packaged together in one textbook per learner or in a set of readers, should be provided to each learner in all grade 1 classrooms and should always be available to grade 2 learners. For higher grades, decodables are only a required part of this package if assessment data demonstrate that children's reading levels are so low as to indicate a need for such material. In terms of leveled readers, when a complete set of leveled paragraphs and stories are bound together in one book, each learner should have a copy of the compilation. If materials are provided in sets of books, sets should be shared by not more than three students in a classroom. A set of leveled readers should include no less than one book per week of the school year. Supplementary readers can be provided at the classroom level. Sets should include no less than one supplementary book per week during the school year.

As with other countries, available data on teaching and learning materials for primary students in Cambodia centers on textbooks, while data related to ERMs is limited. These findings coincide with the general limited resources and lack of awareness among governments, parents, and teachers of the important role of ERMs in children's literacy.

The report identifies strengths and weaknesses in each link of the book supply chain and provides recommendations to ensure that learners are able to access appropriate, high-quality reading materials—in sufficient quantities to improve the reading outcomes in Cambodia.

Methodology

To conduct this supply chain analysis (SCA) in Cambodia, the Global Book Alliance in Action (GBAIA) team spent 20 working days in-country conducting key informant interviews and surveys as well as secondary research and qualitative data collection exercises. The GBA researchers also carried out desk research before and after the in-country data collection. The research tools used have been further piloted and refined during analyses in other countries.

Fifty-seven stakeholder meetings with key actors in the sector, including ministry representatives, donor personnel, implementing partners, publishers, authors, illustrators, printers, and distributors, were held (see Annex 4). Two school visits were conducted, which included teacher interviews. Details of the protocols used are included in Annex 2: Tools Used & Research Methodology.

⁷ Results for Development Institute and International Partners, Global Book Fund Feasibility Study.

⁸ U.S. Agency for International Development, 2019 Education Reporting Guidance.

CONTEXTUAL DRIVERS OF THE TEACHING AND LEARNING MATERIALS CHALLENGE

Scale of the Teaching and Learning Materials Challenge

The 2018 Early Grade Reading Assessment (EGRA) found low literacy rates, with grade 1 students able to identify only 9–10 letters per minute.⁹ Textbooks are in general not correlated to the current curriculum, which was revised in 2016.

The number of ERMs in the classrooms is difficult to determine because the purchase of ERMs is decentralized to each school and/or its library and supplied by regional nongovernmental organizations (NGOs). School purchases are made from a discretionary school operations budget, which must cover everything from maintenance supplies to electricity and water to teaching and learning materials (TLMs). The budget is approximately \$1,300 per primary school and an additional \$4 per student at the primary level, and \$1,500 per secondary school and an additional \$7 per student at the secondary level. Many schools hesitate to spend from this budget for reading materials. Books from NGOs are often found in school and community libraries, but they are neither systematically nor readily distributed for use.

ERMs are available in most of the five major spoken languages¹⁰ in varying degrees. Improving consistent access to these relevant books is a prerequisite for providing continuous learning opportunities and guaranteeing functional literacy.¹¹

Contextual Drivers

Demographics, Geography, Climate

In 2019, Cambodia had a population of approximately 16.5 million,¹² with a population growth rate slowing from 2.25% per annum in 2000 to 1.5% in 2018.¹³ At the same time, significant improvements were made in the health of its population; as an example, mortality rates for children under five years of age dropped from 106 per 1,000 live births in 2000 to 26.6 per 1,000 live births in 2019.¹⁴ Increases

⁹ DeStefano, Pressley, and King, All Children Reading -Baseline Report 2018.

These languages include Khmer, the national and official language; French, the co-official language; Vietnamese; Chinese; and Cham, the most frequently spoken tribal language.

¹¹ Association for the Development of Education in Africa, African Union, Global Book Alliance, and U.S. Agency for International Development, *Continental Framework*.

¹² World Bank, "Population Total – Cambodia."

¹³ Google. "Public Data: World Development Indicators."

¹⁴ UNICEF, "Cambodia: Key Demographic Indicators."

in future student enrollment, rather than reliance on current enrollment data, must be considered in the RGC's projected social sector spending, based on a coordinated, cross-sectoral approach for adequate and effective book supply.

Cambodia is a coastal country located in Southeast Asia, with Thailand, Laos, and Viet Nam geographically bordering the country to the northwest, north, and east, respectively, and the Bay of Thailand to the southwest. The population is concentrated in the south and east, particularly in and around the capital of Phnom Penh and close to the Tonle Sap and Mekong Rivers. Approximately one quarter of the population is urban, with three-quarters living in rural villages, which compromises student access to higher-quality schools and teaching and efficient book distribution. Cambodia's climate is tropical, with two major seasons. Although there is relatively little seasonal temperature fluctuation, recent record heat waves in 2016 and 2019 caused the school day to be shortened by an hour to prevent students and teachers falling ill from heatstroke. This reduction in time of the school day shortens children's exposure to books.

Cambodia's northeast monsoon brings a dry season of infrequent precipitation and low humidity from early November to mid-March.¹⁸ In contrast, the country's southwest monsoon, which occurs from May to mid-October, causes heavy rains and high humidity, accounting for three-quarters of the annual precipitation. The high rainfall in the fall can be so severe that it has caused delays in the start of the school year¹⁹ as well as negatively affected transportation across the country with floods and road washouts.²⁰ Frequent flash flooding damages buildings, equipment, and electronics and causes schools to cancel activities. Teachers have reported that classrooms lack protection against adverse weather, which can damage books and materials in the schools.²¹ Since the school year starts in October, delivery of books prior to the start of the year is also made more difficult.

Educational System

Primary education in Cambodia commonly starts at age six and lasts six years. The most recent available key indicators provide context for the general state of Cambodian education over the last four years that data was available. Strong total and net enrollment rates and an increase in the number of schools illustrate the Royal Government of Cambodia's (RGC's) emphasis on education as an economic pillar. However, per pupil expenditure (PPE) in primary education as a percentage of the GDP (gross domestic product) per capita is 5%, which is lower than the median PPE in primary

¹⁵ Overton, "Cambodia."

¹⁶ For more information on the disparity among urban and rural schools, refer to Phase VI: Active Use.

¹⁷ Associated Press. "Cambodian Schools Shorten Hours."

¹⁸ Overton, "Climate of Cambodia."

¹⁹ Barron and Kunthear, "Start of the School Year Delayed."

²⁰ Overton, "Transportation and Telecommunications".

²¹ Benveniste, Marshall, and Araujo. *Teaching in Cambodia*.

education for low-income countries of 9%.²² This measure is used to show how much the RGC spends, on average, on one student in relation to the average income per Cambodian.²³ The pupil-teacher ratio (PTR) in primary education was 44.5 in 2018–2019, higher than that for most low-income countries, at 40.24

TABLE 1: Key education indicators and primary education quality indicators.²⁵

Key Education Indicators	2016-2017	2017-2018	2018-2019
Total country population ²⁶	16,009,409	16,249,792	16,500,000
Total primary enrollment	2,020,061	2,028,694	2,040,257
Boys	1,045,830	1,053,131	1,061,457
Girls	974,231	975,563	978,800
Number of primary schools	7,576	7,762	7,716
Public	7,144	7,189	7,228
Private	432	432	488
Number of classrooms	61,255	61,635	62,208 ²⁷
Gross enrollment rate – Primary	108.9	107.8	107
Boys	109.7	108.7	108.1
Girls	108	106.9	105.9
Net enrollment rate – Primary	93.5	92.6	92.4
Boys	93.2	92.4	92
Girls	93.9	92.9	84.6

²² Fhi360 and Education Policy and Data Center, Cambodia: National Education Profile.

²³ UNESCO. "Government Expenditure Per Student as % of GDP Per Capita," n.d. http://uis.unesco.org/en/ glossary-term/government-expenditure-student-gdp-capita.

²⁴ Fhi360 and Education Policy and Data Center, Cambodia: National Education Profile.

²⁵ Ministry of Education, Youth, and Sport and Department of Education Management Information System. Public Education Statistics and Indicators.

²⁶ Macrotrends. Cambodia Population Growth Rate 1950–2021. https://www.macrotrends.net/countries/KHM/ cambodia/population-growth-rate. n.d.

²⁷ Ministry of Education, Youth, and Sport and Department of Education Management Information System. Public Education Statistics and Indicators.

Key Education Indicators	2016-2017	2017-2018	2018-2019
Quality Indicators			
Pupil-teacher ratio – Primary	43.8	44	44.5 ²⁸
Pupil permanent classroom ratio – Primary	47.3	46.6	46
Primary completion rate	79.87	79.06	82.14
Boys	76.71	75.68	78.46
Girls	83.22	82.65	86.06
Gender parity index (GPI) for primary enrollment	.98 gross	.98 gross	.98 gross
	1.01 net	1.01 net	1.01 net

TABLE 2: Outcome Indicators and Targets of the Primary Education Sub-Sector²⁹

Indicator	Baseline 2018	Target 2023
Primary schools with access to electricity	49.6%	65.0%
Number of primary schools with a computer per room for pupils (possibly 1%–2%)	20	500
Number of primary schools with a library	1,500	2,500

COVID-19 has had a significant impact on the educational system. School closures have caused delays in teacher training, materials development, and other field work. The pandemic also caused interruption of teaching and learning at schools, which has resulted in an extension of the school year and required catch-up support for learning loss. The prolonged school closure has shifted the focus toward home learning using online platforms, blended learning, and distance learning. Books may well be needed for these efforts to be maximally successful, but it is unclear how all families in Cambodia will acquire the books they need without significant supply chain improvements.

²⁸ Ministry of Education, Youth, and Sport and Department of Education Management Information System. *Public Education Statistics and Indicators*.

²⁹ Ministry of Education, Youth, and Sport, Education Strategic Plan 2019–2023.

Education Strategic Plan and Funding

The main driving force for Cambodia's national development is the RGC Rectangular Strategy for Growth, Employment, Equity and Efficiency (the Rectangular Strategy), a four-part economic strategy implemented in 1998 to the present.³⁰ The current and final phase highlights human resource development as its first priority and is based on improving the quality of education, science and technology; vocational training; and public health care and nutrition while also strengthening gender equality and social protection.

Thus, the MoEYS Education Strategic Plan 2019-2023 (the Strategic Plan) is founded on the first of these principles—to improve the quality of education, science, and technology by prioritizing reforms³¹ based on principles of equitable and quality education, promoting lifelong opportunities for all, and ensuring effective leadership and management of education officials at all levels. In Cambodia, all textbooks are created by the parastatal Publishing & Distribution House (PDH). The Strategic Plan sets a target of 100% of all primary school students receiving a set of textbooks by 2023.

RGC expenditure on education has increased from 1.9% of GDP in 2014 to 2.97% of GDP in 2019, and the country has made considerable progress across much of the sector over the last several years.³² Critical quality improvement measures and responses to education services enabled the MoEYS to further prioritize reform programs. Primary school enrollment, currently at 2.04 million students, has increased slightly, yet steadily, by 1.5% since 2015.33 In 2017, the number of primary schools, both public and private, increased across the country by 3.6% to 7,717, and 96 primary schools were built to be accessible and accommodate the needs of students with disabilities.

Despite these gains, literacy levels of Cambodian children are low. Recently an EGRA was conducted of grade 1 students. The assessment found that students' skills in reading familiar words in isolation or reading a short grade-level passage were essentially nonexistent (with 71% and 91% students scoring zero), and grade 1 students were able to identify only 9–10 letters per minute.³⁴ While these low levels may be attributed to various factors, the lack of reading materials contributes to the poor scores, as students are not exposed to appropriate and engaging materials and to a disciplined reading practice. Moreover, resource allocation tends to be related to the socioeconomic profile of schools. Urban, private, and more advantaged schools are not only "endowed" with more funds, but classes are taught

³⁰ Royal Government of Cambodia, Rectangular Strategy.

³¹ MoEYS Education Strategic Plan (2019–2023): The seven reform priorities include the following: (1) teachers, (2) expansion of schools at all levels, (3) strengthening comprehensive inspection of school management, (4) promotion of technical education at upper secondary level, (5) skills education in accordance with the labor market, (6) development of comprehensive curricula and textbooks, and (7) preparation for the Southeast Asian Games 2023. https://www.globalpartnership.org/sites/default/files/document/file/2019-10-education_ sector_plan-cambodia.pdf

³² Ministry of Education, Youth, and Sport, "Chapter V: ESP Financing Plan."

³³ Enrollment in Cambodia is substantially lower than the high of 2.7 million students in 2003, which is a result in the drop in the birth rate.

³⁴ DeStefano, Pressley, and King, All Children Reading.

by more experienced, higher-educated teachers as well. This indicates a double penalty in Cambodia because schools that are poor are then not being given the resources they need to succeed, including the resources needed to buy the books and materials to support high-quality instruction. The 2018 PISA (Programme for International Assessment) Report stated that "Research suggests that increasing the educational resources available to disadvantaged students and schools offers good returns, both for student achievement and in redressing inequalities in education. It is also shown that in high-performing education systems, resources tend to be allocated more equitably between socioeconomically advantaged and disadvantaged schools (OECD, 2016)."³⁵

Economy

Over the last 12 years, Cambodia has achieved remarkable economic growth, making it one of the fastest growing global economies. In 2015, it transitioned to lower middle-income status and between 1998 and 2018 achieved a growth rate of 8%.³⁶ Its economy is driven by garment exports and tourism, and while easing slightly in 2019, it still remained strong at 7.1%.³⁷

Poverty has declined significantly from approximately 50% of the population in 2007 to 13.5% in 2014 with the greatest reduction occurring in rural areas.³⁸ However, more than 90% of the poor still live in the countryside, and around 4.5 million people remain near-poor and are thus vulnerable to falling back into poverty when they experience economic and other external shocks.³⁹ As such, this population has little to no resources to spend on reading materials. It is interesting to note, however, that despite the lack of household resources across Cambodia, some of those resources are used to purchase items for children, such as store-bought toys. The number of children playing with store-bought toys (from 23.3% to 78.8%) far surpasses the number of reading books (0.2% to 11%) in households, however.⁴⁰

Fiscal Growth

In 2019, RGC earned US\$6.0 billion in customs and tax revenue, exceeding its target of US \$4.56 billion. The prime minister said that the increasing fiscal income was the result of the government's public financial management reform program, and it indicated that Cambodia is becoming a country with a tax payment culture.⁴¹ The increase in revenue has been matched by increased spending on educational materials: MoEYS spending for textbook supplies to schools increased over the last decade from US\$4.8 million in 2011 to US\$6.4 million in 2020.

³⁵ Ministry of Education, Youth, and Sport. Education in Cambodia.

³⁶ Royal Government of Cambodia, National Strategic Development Plan 2019–2023.

³⁷ The World Bank, "The World Bank in Cambodia: Overview."

³⁸ Royal Government of Cambodia, National Strategic Development Plan 2019–2023.

³⁹ The World Bank, "The World Bank in Cambodia: Overview."

⁴⁰ National Institute of Statistics, Directorate General for Health, and The DHS Program. *Cambodia: Demographic and Health Survey 2014.*

⁴¹ Xinhua. "Asia&Pacific: Cambodia Earns."

In November 2019, the National Assembly of Cambodia approved the draft expenditure budget for 2020 of US\$7.17 billion, allocating US\$1.94 billion for social sector spending. Both budgets increased from the previous year, at 22.7% and 8.6%, respectively, and were based on projected gross revenue earnings of approximately US\$6.5 billion for 2020.

Prior to the COVID-19 pandemic, Cambodia's economy was projected to grow by 6.5% in 2020, increasing its GDP to US\$29.4 billion, with the GDP per capita expected to reach US\$1,816.42

TABLE 3: Royal Government of Cambodia's national budget. 43

Subject Descriptor	Units (Billions, Riels) ⁴⁴	2017	2018	2019	2020
General government revenue	National currency	19,386.75	23,538.27	25,632.29	27,350.79
General government revenue	Percent of GDP	21.6	23.80	23.65	23.02
General government total expenditure	National currency	20,082.43	24,358.02	27,054.92	29,344.58
General government total expenditure	Percent of GDP	22.38	24.62	24.96	24.70
General government net lending/borrowing	National currency	-695.678	-819.754	-1,422.63	-1,993.80
General government net lending/borrowing	Percent of GDP	-0.78	-0.83	-1.31	-1.68
General government primary net lending/ borrowing	National currency	-407.355	-477.433	-1,047.51	-1,582.68
General government primary net lending/ borrowing	Percent of GDP	-0.45	-0.48	-0.97	-1.33

⁴² Royal Government of Cambodia, National Budget.

⁴³ International Monetary Fund. World Economic Outlook Database. October 2019. Actual data is provided for 2017-2018; subsequent years are estimated projections. Note: General government net lending/borrowing (national currency): Net lending (+)/ borrowing (-) is calculated as revenue minus total expenditure. This is a core Government Finance Statistics (GFS) balance that measures the extent to which the government is either putting financial resources at the disposal of other sectors in the economy and nonresidents (net lending) or utilizing the financial resources generated by other sectors and nonresidents (net borrowing).

⁴⁴ Approximate exchange rate 1 USD = 4,096 riel

Transportation Infrastructure

Included in RGC's growth agenda is its intention to borrow from development partners for infrastructure projects, which will improve transportation links and in turn could further the improvement of the book supply chain. The continual improvement of transportation infrastructure should lead to increasingly easier distribution of books.

Electricity

Cambodia has in recent years produced more electricity domestically by expanding its grid and through renewable sources. By early 2018, 97.6% of Cambodian households had access to at least one source of electricity—78% on the grid and 19.8% powered mostly through solar home systems and rechargeable batteries. However, reliability is an ongoing issue, with frequent and unpredictable power outages and appliance damage from voltage fluctuation for grid-connected households. It is estimated that approximately 13% of households have 23 hours of reliable and safe access a day. In the 2017—2018 school year, 49.6% of primary schools had access to electricity. This has clear implications for the ability of children to read, as they are limited in many cases to daytime hours only.

TABLE 4: Main sources of lighting by residence (urban and rural areas), 2017.45

Sources of Lighting	Cambodia	Urban	Other/Rural
Publicly provided electricity/City power	78%	97.7%	72.8%
Battery	11.9%	1.3%	14.7%
Solar	7.9%	0.4%	9.9%
Others	2.2.%	0.6%	2.6%

⁴⁵ National Institute of Statistics. Cambodia Socio-economic Survey 2017.

Connectivity

Cambodia is highly connected to mobile phones and the Internet. The SIM card market is saturated with activated cards, which actually exceed the population, and more than 50% of Cambodians own at least one mobile phone. A total subscription figure for mobile phones was estimated at 20.8 million. In 2019, the Telecommunications Regulator of Cambodia estimated that the total number of individual Internet users, including both computer and mobile, had risen to 15.8 million, which is about 98.5% of the population.⁴⁶ Most users still access the Internet through their phones, and the number of rural residents who use the Internet is lower than that of urban areas (31% vs. 48% in 2016).⁴⁷ There are six telecom firms in Cambodia: Cellcard, Smart, Metfone, Axiata, Seatel, and Cootel, the first three of which account for 90% of users. There are many data packages available from each of the providers, therefore usage is affordable.

Although basic digital infrastructure is in place, its speed, quality, and capacity must be increased to meet the demand of the digital economy.⁴⁸

However, only 20 primary schools had a computer room for students (2017–2018), and less than 50% of primary schools had access to electricity.⁴⁹ Schools are therefore largely unable to take advantage of digital content and so are limited to printed materials in classrooms. The MoEYS has a goal to provide 520 schools with computer rooms by 2023. This is not a majority of schools, and they will still need electrical hook-ups, computers, and access to content.

Vannak. "Internet Users Near 16m."

Phong, Kimchhoy, Kihol Srou, and Javier Solá. Research Study: Mobile Phones and Internet Use in Cambodia 2016. https://asiafoundation.org/wp-content/uploads/2016/12/Mobile-Phones-and-Internet-Use-in-Cambodia-2016.pdf.

⁴⁸ IM Vutha, H. E. Digital Connectivity in Cambodia. https://www.itu.int/en/ITU-D/Regional-Presence/AsiaPacific/ Site Assets/Pages/Events/2019/RRITP2019/ASP/Digital%20Connectivity%20in%20Cambodia.pdf. n.d.

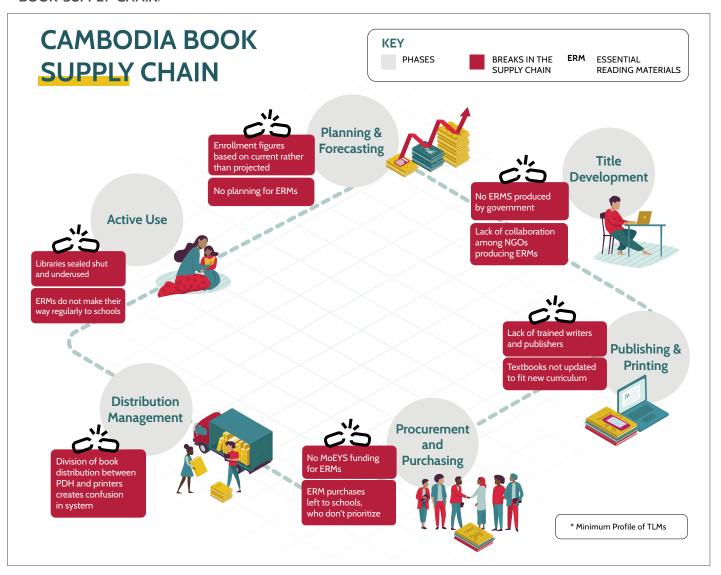
⁴⁹ Ministry of Education, Youth, and Sport, Education Strategic Plan 2019–2023.

BOOK SUPPLY CHAIN ANALYSIS

Supply Chain Overview: Six Strategic Phases

The Cambodia Book Supply Chain Analysis examines the six strategic links in any book supply chain. An effective book supply chain requires accurate forecasting and planning, high-quality title development in languages and formats children can use and understand, access to those titles by publishers and printers, a functioning distribution system to deliver books, and appropriate knowledge and support to ensure use and build a population of active readers. Each of these phases is summarized with discussion, findings and recommendations. Sources are found in Annex 4.

FIGURE 2. PHASES OF, ACTORS AND ACTIONS IN, AND BREAKS IN THE CAMBODIA BOOK SUPPLY CHAIN.



SCA Phase I: Planning and Forecasting

Planning and forecasting is recurring and cyclical work carried out by both governments and publishers to assess the need and demand for books and to arrange for the financial and material resources to meet that demand. To do this, the Cambodian Ministry of Education needs timely information, and not only on enrollment, but also on projected enrollment and realistic estimates of book wastage over time. Publishers must plan for and be prepared to respond to demand from ministries and schools, as well as from parents who may purchase books for their children's reading practice. For the RGC, the collection, management, analysis, and use of data related to book needs, demand, and provision is an integral part of education planning. For the publishers, it is market research. For both, accurate and timely data collection is of key importance for a functioning book supply chain.

In Cambodia, identifying the needs of the book supply is carried out by the parastatal PDH (described in detail in Phase II: Title Development), which reports the data to MoEYS' Department of Curriculum Development (DCD), Office of Planning & Textbook Distribution (OPTD), which in turn calculates expenditures, including book supplies, according to the approved budget. The system as described below is currently focused entirely on textbooks and does not address ERMs.

Estimating Demand

Book Policy

In 2011, the RGC implemented the Early Childhood Education Book Policy for both early childhood and primary education, which provided the framework to revise curricular materials (e.g., workbooks to teach how to write Khmer and numeracy and to develop fine motor skills) for community pre-schools in accordance with curricular standards. Since then, budget allocations for textbook supplies have risen 33%, from \$4.8 million in 2011 to \$6.4 million in 2020.

Understanding the significance that books play in early literacy, the Primary Education Department (PED) more recently sought to "improve the supply and utilization of core textbooks and other teaching and learning materials"⁵⁰ into its current education strategy. The plans were as follows:⁵¹

- Occilect data on the utilization of core textbooks by subject
- Implement guidelines on core textbook management
- Mobilize donors to supply additional textbooks and reading books
- Allocate budgets for purchasing reading books and materials in schools
- Develop information technology for developing and supplying books
- Organize reading spaces or libraries in schools that encourage the enjoyment of reading

⁵⁰ Ministry of Education, Youth, and Sport, Education Strategic Plan 2019-2023, 30.

⁵¹ Ibid.

- Provide adequate teaching and learning materials to all teachers and students, including assistive devices to learners with special needs
- Develop supplementary reading materials (SRMs) and encourage their use by teachers
- Dupdate policy on core curriculum in textbooks and teachers' guides in 2019

In Cambodia, all textbooks are created by the parastatal PDH. Approximately 5.5 million textbooks are printed each year to go to schools to replace damaged or lost books and to account for enrollment fluctuations. Another 2 million are printed for sale on the private market (parents, etc.). There are currently 27 textbook titles that are mandatory for public and private schools in teaching the current curriculum, 3 each for grades 1–3 and 5 each for grades 4–6. Books are supplied free to the public schools.

TABLE 5: Number of textbook titles per grade 1-6.52

Title	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
Khmer	~	~	~	~	~	~
Math	~	~	~	~	~	~
Science	~	~	~	~	~	~
Social Studies	Combined	Combined	Combined	~	~	~
English	×	×	×	~	~	~
Titles by grade	3	3	3	5	5	5

Data gathering on textbooks rests with the DCD and PDH which does not directly work with other data collection units. However, the recent national implementation of the Track and Trace digital system will significantly aid in data collection for textbook delivery. (The Track and Trace system will be discussed further in Phase V: Distribution Management.)

School directors forward their requirements to the District Office of Education (DOE) at the district level. These requirements are based on advance predictions of two years and questionable inventory levels, as teachers are hesitant to report losses of government property. This paper-based reporting is then forwarded to the Provincial Office of Education.

Each school is responsible for making sure each child has books, and thus they are relied upon to supply the appropriate data to the Planning and Distribution unit of the DCD.

⁵² Information provided by the PDH.

There is no system for ordering ERMs. The schools receive allocations to their discretionary funds. These funds would be used for older children as well, since there is no separate money budgeted for grades 1–6.

Forecasting

As in planning, budget forecasting is based on classroom textbooks and does not include ERMs. In Cambodia, as in many countries, ministries' line budget requests are seldom met. MoEYS must therefore consider the acceptable textbook-to-pupil ratio for each subject and in each grade and revise the ratios according to the Ministry of Economy and Finance (MoEF) budgeted allocations. To the extent possible, it is recommended that a 1:1 ratio for all subject textbooks be allocated to students in all grades. Cross-country research has shown that "pedagogical resources, especially textbooks for the core subjects of reading and mathematics, are effective in improving learning; providing one textbook to every student in a classroom increased literacy scores by 5–20%."⁵³ In the absence of meeting these textbook ratios, access to ERMs in the classrooms would enhance primary students' capacity to read.

MoEYS spending for textbook supplies to schools increased over the last decade by 33%, from US\$4.8 million in 2011 to US\$6.4 million in 2020, out of a total projected education budget of approximately \$879.2 million for 2020, indicating a rough estimate of a low \$1.65 per student per year at the primary and secondary levels.⁵⁴ With a reduction in enrollment of 731,856 (due to demographic reductions rather than drop-outs), an increase in pupil-to-book ratios should most likely have resulted from the increase of budget. Further research is needed to determine whether this is the case.

GBA Findings: Planning and Forecasting/Strengths

- The target book-to-pupil ratio of 1:1 has been achieved in some subjects, and almost 1:1 in others. (The MoEYS aims to provide 100% of primary students with one set of textbooks by 2023).⁵⁵
- The Track and Trace system has been instrumental in improving demand forecasting and may be useful in future budget planning.
- School Support Committees (SSCs) have been instrumental in confirming books in classrooms.
- Education Management Information System (EMIS) publications summarizing public education statistics and indicators up to and including 2019 was received by the MoEYS Department of Education Management Information Systems (DEMIS).

⁵³ Fehrler et al., 2009

⁵⁴ Information provided by the PDH.

⁵⁵ Ministry of Education, Youth, and Sport, Education Strategic Plan 2019–2023.

GBA Findings: Planning and Forecasting/Weaknesses

- Planning and forecasting processes are focused only on textbooks, and they do not include ERMs.
- Book quantities are based on inaccurate enrollment data that does not project for increase in enrollment.
- Responsibility for gathering information on school book supplies rests with the DCD and PDH which does not work directly with other data collection organizations. The PDH collects data on replenishment needs per grade and presents it to MoEYS, who most typically, has to reduce the number of new books provided to fit the budget (in which case, teachers continue to use old books, while some parents buy new books for their children on the open market).

GBA Recommendations: Planning and Forecasting

GBA recommends:

- That increases in future student enrollment, rather than reliance on current enrollment data, be considered in projecting book quantities.
- That teachers and school directors be encouraged to accurately report book losses and not fear reprisals for a common occurrence in book supply to students.
- That planning and budgeting include ERMs and not just textbooks.
- That the Track and Trace data collection system be utilized and championed by all sector stakeholders. Originally funded by the World Bank, the Track and Trace system both facilitates and monitors the budgeting, procurement, and disbursement requirements of MoEYS. MoEYS has been handling all running costs of the system and the PDH has financed its rollout to all provinces.
- That donors provide coordinated support to MoEYS as needed and in coordination with PDH's financing of an expanded rollout of the Track and Trace system. This includes immediately assessing the training needs of all personnel required for system implementation and drafting an action plan based on these findings.

SCA Phase II: Title Development

Title development refers to the creation of texts and books intended to support acquisition of reading skills in languages children use and understand. The process of title development begins once an author has been selected (or in some cases, a complete manuscript has been chosen for publication) and continues until the final PDFs of the book are sent to the printer. It is a process that calls upon the skills of pedagogical experts, writers, editors, graphic designers, illustrators, proofreaders, page layout specialists, and others. The function of title development for ERMs can be carried out by publishers, whether state or private, and, as is often the case in developing countries, by donors and NGOs who step in to provide these materials where they do not exist.

In Cambodia, ERMs are commonly developed by NGOs and to a very limited degree the private sector.

The Writing of Essential Reading Materials

When the Khmer Rouge began its brutal takeover of Cambodia in 1975, one of its first actions was to burn all the books. Only when the Vietnamese and Russians entered Cambodia after the war did texts begin to return to the country, and those only on photocopies. The decimation of the book industry is still felt today, and being overcome with great difficulty.

In Cambodia, there are virtually no leveled or decodable readers. Other ERMs are not supplied by the government as part of their Free Books for Schools policy, and there is no earmarked budget for purchasing them. Thus, the responsibility lies with NGOs and donors, who supply a variety of titles for primary school-aged children, including those in Khmer, as well as minority languages. English language instruction materials are also available as are English and a few bilingual readers.

Two prevalent issues among suppliers of ERMs are the lack of coordination among them and supply not meeting demand. As mentioned, each NGO operates within its regional locale. Parents are also often unaware of what is available to them in the markets.

The MoEYS recognizes the importance of ERMs in enhancing literacy and supports their dissemination, but the RGC's policy of decentralized purchasing leaves the decisions of school operating budget spending to school directors, who seldom prioritize the purchase of ERMs with their limited budgets.

The Special Education Department, which is in charge of the education of children with disabilities (CWD), is implementing a revised multi-lingual education action plan, based on RGC's *Multilingual Education National Action Plan* (MENAP), which was implemented in 2015 by the MoEYS, in collaboration with UNICEF Cambodia, CARE, and other stakeholders. Its goal was to level the playing field for Indigenous students by teaching Indigenous languages in preschool and the first three years of primary school and then bridging this language learning while slowly transitioning to Khmer and the national curriculum in grade 4.

In 2020, the Special Education Department was to mobilize technical assistance to review textbooks, teacher guides, TLMs on MLE at pre- and primary level in the existing five languages.⁵⁶ Textbooks and supporting TLMs in Jarai language were also to be developed.

These languages include Khmer, the national and official language; French (co-official); Vietnamese; Chinese; and Cham (the most popular tribal language).

Private Sector Publishers

There is a small private sector of publishers in Cambodia creating general children's books. Chief among them are the following:

- Reading Book
- Saing ka pak
- Under the Roof
- Bantay Srey
- Comic Arts
- Nokar an edition

- Domrey sor
- Mango Tree
- Book World
- Koan Moan
- Heart Kids
- Fount of Wisdom

Each of these publishers has somewhere between 5 and 30 titles on their lists. The small but growing number indicates that private publishing, once destroyed, is slowly making inroads. Nonetheless, most books in Cambodia are still produced by NGOs and donors.

Book Development by NGOs

The following NGOs and donors and their activities have been highlighted as consistent ERM suppliers to both schools and libraries. They include the following:

- All Children Reading (ACR)
- Room to Read
- The Asia Foundation

- Let's Read
- Sipar
- Open Institute.

Sipar

Sipar is an international NGO funded primarily by the Agence française de développement (AFD); it has a small office in Versailles, France, as well as a larger one in Phnom Penh. Sipar was the first NGO to officially partner with MoEYS, and it works collaboratively with other Cambodian NGOs. Sipar publishes children's books in the Khmer language (and translates classic literature from elsewhere into Khmer) and provides access to these books through mobile and school libraries, other NGOS, and sales to bookstores. Its goal is to create sustainable projects and transfer them over to public and private sector organizations to fund and administer, such as the 300 school libraries it created and then transferred to MoEYS. The libraries were fully integrated into the MoEYS, and 80% of them have been maintained by schools since the transfer. Sipar remains a partner with the MoEYS to contribute to the national strategy and trainings in terms of library and librarian development.

Sipar provides nonformal education through community mobile libraries as well as prison libraries, which provide literacy and vocational training to inmates. Working with private enterprise, it has also expanded libraries into many provincial garment factories.

As a publisher, Sipar employs its own authors, editors, translators, illustrators, and marketing team, all of whom are Cambodian. Through its sales to bookstores, it subsidizes its donor inflows from the AFD and others with sales income. Sipar has published more than 200 titles and sold 2.5 million copies since 2000. Of these, more than 50% are for children in primary grades. In 2020, it published 15 new titles and reprinted 91. It pays writers of materials for grades 1–6 either a small royalty or a flat rate per book, beginning at \$100 per book.

Through invitation-only workshops, Sipar has trained 138 writers on book-writing techniques on a myriad of topics relevant to children's book development. Training for illustrators is also available.

Kampuchean Action to Promote Education

Kampuchean Action to Promote Education (KAPE) currently offers four programs that develop ERMs. They include the Books for Cambodia Program, Thontean Obrom, the Readability App Development Program, and the 21st Century Library Development.

Founded by the Asia Foundation and implemented by KAPE, Books for Cambodia BfC disseminates high-quality English books for primary, secondary, and tertiary levels. The program is now partially subsidized by the MoEYS, and to date, 60,000 books in English (donated by U.S. publishers) have been disseminated through the BfC networks, mainly to primary and secondary schools.

Meaning "Educational Resources" in English, Thontean Obrom TTO is a social enterprise that KAPE established to produce teaching and learning aids, especially those used in teaching reading. It sells between US\$150,000 to US\$200,000 in educational games and materials each year in literacy and math toolkits to the public. Materials are linked to the national curriculum.

Efforts to design leveled text in Cambodia's publishing industry is primarily done on an ad hoc basis. With funding from Child Fund, KAPE has developed an app that can analyze Khmer text and provide insight on its complexity by using such measures as syllables per sentence or word. KAPE is hopeful that this app can be used to create leveled text using empirical analysis.

KAPE has also been making significant investments in library modernization efforts to increase access to books and educational apps through its *21st Century Library* programming. This intervention is woven into several projects, including New Generation Schools (NGS),⁵⁷ a reform program funded by MoEYS and launched in 2015 to better prepare students for the 21st century workforce. The reform aims to develop students' cognitive competencies, particularly focusing on science, technology, engineering, and mathematics (STEM), information communication technology (ICT), and critical thinking skills, as well as interpersonal and intrapersonal competencies. As of 2018, the reform operated in 10 designated NGS nationally, serving more than 4,000 students. MoEYS invests in library development in both online and off-line services, including educational apps providing access to hundreds of books, including The Asia Foundation's *Let's Read* app.

⁵⁷ KAPE. "What We Do: Success and Innovation." https://link.springer.com/chapter/10.1007/978-981-15-2137-9_6; https://link.springer.com/chapter/10.1007/978-981-15-2137-9_6; https://link.springer.com/chapter/10.1007/978-981-15-2137-9_6;

RTI International's All Children Reading Cambodia

The All Children Reading Cambodia program is an early grade reading support program that operates in close collaboration with MoEYS and is funded by USAID. It is implemented by RTI International and draws its staff and consultants from a broad spectrum of NGOs and freelancers, including Room to Read, Save the Children, UNESCO, World Vision, and World Education. This program is a good example of a collaborative consortium with which MoEYS likes to partner.

With the objective to improve early reading of children in grades 1–3,58 the program has introduced an innovative type of ERM called supplementary student books (SSB), which are structured, decodable literacy materials that complement textbooks by bridging them to supplementary readers. With a focus on Khmer language and mathematics, SSBs use a modern, simplified pedagogical approach based on repetitive patterns that strengthen reading and writing. They are aligned and complementary to the student core textbook and classroom curriculum that teachers use for their daily lesson delivery. The program has developed 30 books, which include teacher activity guides and SSBs. Packages have been supplied to all grade 1 primary schools in seven provinces, with Global Partnership for Education (GPE) funding packages in five provinces and USAID funding them in two provinces. In 2021, grade 2 will be available, along with plans to scale up in 12 more districts. RTI is currently piloting mathematics grade 1 in all districts of Siem Reap, with UNESCO piloting grade 2 in two districts.

For grades 1 and 2, 140,000 books were printed per year for each grade. Program printing was done by a sealed bid request for proposal (RFP) using separate lots that can be awarded to several Cambodian printers. RTI also opens procurement for other organizations to print books together in larger quantities at a more favorable price.

Program funding will fall to MoEYS when the RTI program closes. MoEYS has a plan to use the government's program budget for schools for the continuation of providing the EGR package to schools. Due to limitations of RGC's funding as a result of COVID-19, MoEYS also has a plan to ask parents who are financially able to do so to purchase the materials for their children. With CC BY licensing, the private sector and the market will be allowed to print and sell the materials on the market. However, MoEYS will provide the materials free of charge to poor children. As of July 2021, ACR-Cambodia was working on transferring soft copies of the materials to MoEYS.

As of the writing of this report, key NGOs working on EGR, such as World Education, Room to Read, Save the Children, and World Vision, were using the new harmonized EGR package in their target schools. MoEYS had a full buy-in and was advocating NGOs and Development Partners to support the rollout of this national package country-wide. USAID Cambodia was committed to supporting the MoEYS to scale the program to other provinces in the next five years.

⁵⁸ This was changed in 2021, and grade 3 was dropped, based on discussions with MoEYS and GPE and due to time constraints.

Additional scaling of the program will involve domestic resources from the RGC and DP and NGO partners.

In response to COVID-19, the ACR-Cambodia adapted its interventions as follows:

- Developed online learning content and distance education materials promoted through social media and other platforms to support teachers, parents, and students in upper preschool to grade 2 in daily reading and learning activities.
- Developed and distributed an EGR home-learning package to approximately 150,000 children in three provinces. This USAID-supported home-learning package was rolled out nationally to all grade 1 and 2 students.
- Onverted in-person teacher training to virtual training using videos and messaging for all upper preschool and grade 1 and 2 teachers in three provinces.

Also, in partnership with UNICEF, USAID contributed to the provision of key hand hygiene supply items, including soap and hand sanitizers, as well as thermometers and information, education, and communication (IEC) materials to all schools in Cambodia.

ACR-Cambodia developed and distributed the EGR home-learning package to support children and parents during the school closures. The home-learning package plus EGR materials were distributed to all children in 25 provinces throughout Cambodia under the Capacity Development Partnership Fund Phase III (CDPF Phase III), a multiple donor-funded mechanism, including the European Union (EU), Swedish International Development Agency (Sida), USAID, GPE and UNICEF. A brief orientation training for the home-learning package was provided by ACR-Cambodia to support the implementation of the home-learning package nation-wide, which aimed to reach approximately 21,000 grade 1 and 2 teachers and school principals in all 7,303 public primary schools in Cambodia.

Room to Read

Room to Read (RtR) Cambodia is one of the RGC primary partners in improving Cambodia's quality of education. RtR works closely with partners across the industry to produce ERMs for grades 1–6, paying a flat rate to writers of \$80–\$100 per book. RtR annually produces approximately 15–20 titles, creating a backlist of some 290 titles. It also buys books from other publishers and NGOs, selecting them based on quality and price. Of the nearly 1,000 titles available for primary grades on the market, RtR considers only approximately 60% to have appropriate content, with the remaining unsuitable in theme and difficulty level for use in schools.

RtR owns the intellectual property of its material, but as a charity, cannot sell the books to schools or other NGOs. It supplies books to school libraries free of charge. RtR also offers ongoing training programs, recently hosting a five-day publishing workshop and organizing another on publishing nonfiction ERMs. RtR continues to champion for budgeted allocations of ERMs in schools and improving the reading culture through teacher and librarian engagement.

The Asia Foundation: Let's Read

The Asia Foundation's Let's Read project began in 2017 and offers three types of training events to create children's reading materials:

- Dookathons Two-day events that produce original books with local writers.
- Translation workshops One- to two-day events where college students and other bilinguals translate books into Khmer, which are then edited by experts and uploaded onto the Let's Read platform.
- Dook Labs Seven-month intensive programs for building capacity of writers and illustrators of children's books and storybooks through developing 10 new Khmer language titles.

Beneficiaries attend workshops—taught by international professional experts—where they learn the entire publishing process from conceptualization to printing. The finished books are licensed under Creative Commons (CC) licensing and are printed and loaded onto the Let's Read platform for dissemination in e-book format. Writers and illustrators are paid honoraria of US\$150 and US\$200, respectively, while editors receive US\$200–250 for editing two books. The project has served 200 writers and illustrators and produced 200 titles (70–100 original books, including approximately 200 titles in multiple languages).

CARE

Over the past decade CARE has produced over 90 titles of multilingual books for grades 1–3 for the MoEYS MLE program. All have been officially reviewed and approved. CARE currently has no book programs being implemented in or forecasted for Cambodia.

Open Institute

Open Institute (OI) has worked on ICT for education for 12 years and considers its work as complementary to that of other organizations. While their focus is on reading, OI concentrates on writing as the basis of learning how to read. It has developed two series to teach writing Khmer and basic numeracy for preschool, as well as a program for introducing math learning materials to textbooks in grades 1 and 2. OI is producing 12 workbooks: Khmer (6), preschool numeracy (2) and fine motor skills development to write (4). These workbooks follow the preschool curriculum and have been developed in conjunction with the Early Childhood Education Department and the preschool teacher training centers. There are currently no approved materials available for preschool children, so OI's books (Clever Little Monkey collection) will be the first available on the MoEYS website and in bookstores around the country allowing parents to print or buy them for their preschool children.

OI is also working with the Primary Education Department (PED) to create similar *Clever Little Monkey* booklets for Khmer grade 1. Under UNESCO's Strengthening Teacher Education Programs in Cambodia (STEPCam) funding, OI has partnered with PED to develop workbooks (SSB) and teacher's guides for grade 1 and 2 math and intends to add *Clever Little Monkey* workbooks.

Open Book Libraries

Open Book is a local Cambodian NGO that operates an open reading room and store on Street 240 and has libraries in Phnom Penh and two provinces. Its publishing arm, Open Book Editions, publishes children's books in Khmer, French, English, and Chinese, selling books through its own store, to Sipar, and at book fairs in Cambodia and internationally.

Publishing and Distribution House

The parastatal PDH has a small department that produces children's books, workbooks, and ERMs. It is not profitable but has continued due to a historical obligation when it was the only publisher of children's books in Cambodia. The PDH has reduced its number of ERMs, writing some in-house and purchasing the copyrights of others.

The PDH management committee plans to introduce 10–20 titles per year, which are likely to be workbooks rather than ERMs, as workbooks are more profitable. Commissioning non-textbooks still requires MoEYS approval and follows the same procedure as textbooks. Five thousand copies are printed of each new title and warehoused until purchased. There are approximately 950 ERM titles on the PDH list (some created by PDH and others bought from publishers). Some are bought by schools, but most go through the Orussey market wholesalers.

Rise and Fall of Comic Books

Comic books for children have come in and out of fashion in Cambodia. The arrival of social media has severely impacted the market for comics, but comic book producers, authors, and illustrators have adapted by uploading their work online, usually to Facebook. Using this platform eliminates the cost to create, maintain, and update a website and offers free cloud and image storage.

Copyright in ERMs

For locally published books, the common practice is for a one-time fee (of around \$200 for a novel) to be paid to the author, and the copyright then belongs to the bookstore or publisher for lifetime.⁵⁹ Sipar, an NGO whose activities have been described earlier, pays writers of materials for grades 1–6 a small royalty or a flat rate, beginning at \$100/book.

Outside of NGO publishing, there have been few occurrences of royalties payments being made in the private sector. This "clean break" copyright purchasing system makes multiple small reprints economically viable over the long term.

⁵⁹ Copyright in Cambodia lasts the lifetime of the author plus 50 years after the author's death.

GBA Findings: Title Development and Strengths

- NGOs such as Sipar and Room to Read are developing high-quality children's literature.
- While limited resources and capacity currently constrain the MoEYS from fully leading developments in the education sector, the collaborative efforts in the education sector (for early grades) have been greatly strengthened in the last few years through the ACR model. This can continue to be built on over time and eventually transition to entirely MoEYS-led efforts.

GBA Findings: Title Development and Weaknesses

- There is no direct government involvement in the production of ERMs, which are strictly provided by NGOs and a few private publishers.
- There has been no thorough market analysis on students' reading needs, what they want in books, and the price parents are willing to pay. Such an evaluation is essential in developing strategies to promote a reading culture.
- With few exceptions, such as the ACR project, there has been little collaboration in the supply of titles among NGOs, who pursue their own agendas and often in particular geographical areas. As seen above, the ACR model could be seen as a model to build on for such collaboration.
- There is neither a universal method on leveling readers nor a standard literacy definition in Cambodia.

GBA Recommendations: Title Development

GBA recommends:

- That training in the creation of ERMs be given to NGOs and private sector publishers.
- That library standards and graded books be coordinated with the six levels of primary school study, and all parties agree to and apply this grading standard in ERM development.
- That all donor-funded ERMs be copyrighted under a Creative Commons license (or similar open licensing) and made available electronically to allow for decentralized reproduction.
- That a comparative cost analysis be carried out of all production costs to identify price differences paid by NGOs and MoEYS to help identify potential opportunities for cost savings.
- That a thorough market analysis be carried out on students' reading needs, what they want in books, and the price parents are willing to pay. Such an evaluation is essential in developing strategies to promote a reading culture.
- That MoEYS should be supported in creating national standards that define both reading grades and literacy, with the Department of Curriculum Development (DCD) defining these standards.

SCA Phase III: Publishing and Printing

Publishing generally encompasses the contracting of authors, and all the steps of title development described in the previous section (writing, editing, illustrating, graphic design, and page layout). It also includes the ownership, licensing, and marketing of intellectual property. In the case of a private sector publisher, publishing is a for-profit business. Where state publishing exists, the curriculum and accompanying textbooks are generally created by MoEYS staff. Printing refers to the manufacturing process, whereby the final PDF is transformed into a printed bound book by means of ink, paper, and a printing press, and then binding equipment. Sometimes private publishers have their own printing press, but more often, they contract out the printing. In the case of a state publisher, books may be printed by a state printer or tendered out to a private printer.

For the purposes of this report, we have treated the development of ERMs in Phase II: Title Development, and textbook development here in Phase III: Publishing and Printing.

Textbook Publishing

In Cambodia, the process of commissioning and writing textbooks and their accompanying teacher's guides starts with the curriculum, which together with the accompanying standards expressed as outcomes form the framework for the textbooks. On average it takes six months for each book to be written by PDH consultants from the MoEYS, schools, and universities who work on a freelance contract basis and are paid flat fees.

Curriculum and Textbook Development

Historically, curriculum and textbook development has consisted of responsibilities that passed back and forth between the DCD and the PDH. The Asian Development Bank (ADB)-funded Basic Education Textbook Project (BETP; 1996–2002) assisted the government in reorganizing the MoEYS educational publishing functions in an effort to improve textbook provision and achieve a 1:1 pupil-textbook ratio. From 1997 to 2001, the DCD continued to be responsible for setting the curriculum and writing the manuscripts for all primary and secondary textbooks. Manuscripts were then passed to the PDH for designing, typesetting, printing, and distributing. Through the BETP, authoring, editing, design, and production were consolidated under the PDH, and in 2001, the responsibility of writing textbooks was transferred from the DCD to the PDH, although the DCD remained responsible for training authors.

The PDH became semi-autonomous in 2002, a parastatal with two shareholders (MoEYS and MoEF) described as a Public Enterprise with Economic Characteristics (PEEC). In 2008, the PDH began to control the reproduction rights in new titles that it commissioned, which were based on recently updated curriculum. Under the current system, the PDH retains the copyrights to the books it develops. Each year, the MoEYS buys the rights to the books it needs, then a tender is sent out for printing and distribution to allow private firms to participate. Although it is thus a monopoly and a for-profit company, the PDH is under close supervision by its board of directors, which is composed of officials

from the Ministry of Education, Ministry of Economy and Finance, and the Council of Ministers. The PDH is allowed to make enough profit to operate and survive, but the profit cannot be excessive. The price of textbooks must be agreed upon with the board.

Curriculum development was transferred back to the DCD in 2014, and a standards-based curriculum for all grades and subjects and based on standards of child-centered learning through inquiry and problem solving-based learning was developed and approved by the Ministry in 2016. Concurrently, curricula on social studies were developed by Japanese consultants, and in 2017, science, mathematics, and ICT were developed by Singaporean experts to align with the standards of the Association of Southeast Asian Nations (ASEAN). Syllabi for all subjects were developed in 2018. Submissions were made for final authorization for its implementation in February 2020, and as of the writing of this report, authorization was still pending. The implementation is hampered by the fact that there are no new textbooks, and no clear plan by the MoEYS to develop them.

The DCD has suffered from a lack of direction and clarity among its leadership due to this flux in responsibilities, resulting in an ambiguity over its role in the supply of books, with its OPTD relegated to data collection on the number of pupils in school at the end of each academic year rather than also on developing curriculum. After an extended period with no leader, a newly appointed director, Mr. Sun Bunna, was installed in January 2020. He explained to the team the systemic problems of implementing the curriculum: Although the official MoEYS policy is to tender textbooks development to the private sector, the reality is that there are no publishers capable of taking up the task and no trained writers to write them. Recently, the DCD received training from Hiroshima University on writing and developing textbooks, focused on social studies, and Mr. Bunna would like to see more of this training from international experts.

Curriculum Change: The Effect on Textbooks

MoEYS is instructing schools to teach using a child-centered learning pedagogy through the use of inquiry and problem-solving-based learning standards. However, budgetary constraints within MoEYS and the enormous cost incurred to produce all new textbooks have prevented immediate revisions. In the interim, the MoEYS has determined that if a textbook complies with 60% of the curriculum, its use will be acceptable.

The Capacity Development Partnership Fund

The Capacity Development Partnership Fund (CDPF) is a pooled funding mechanism and partnership between MoEYS, the European Union (EU), Swedish International Development Agency (Sida), and USAID managed by UNICEF Cambodia. CDPF is designated specifically for building capacity within MoEYS according to the Capacity Development Master Plan (CDMP) and is operational from 2018 until 2023, when the EU starts its new budget support cycle. It amounts to €27 million, of which the EU contributes €14 Million, USAID US \$1 million, and contributions from GPE and Sida.

MoEYS requires financial support to develop all reading materials for all grades based on the current curriculum standards, but lacks any book-related capacity-building support from the CDPF or any other EU vehicle. However, with the recent appointment of the new DCD director, the EU is prepared to consider this support if the initiative originates from MoEYS, is included in the next CDMP, and provides clarity on all curriculum implementation issues. This last requirement must be met before discussions can begin.

Production of Books for Children with Disabilities

According to the Cambodia Demographic and Health Survey (2014), 1.8% of children between 5 and 14 years were reported to have a disability.⁶⁰ As of 2017, the number of children with all disabilities was 44,759 in primary schools and 6,787 in secondary schools, with emotional disabilities the most common with primary school children and visual and hearing disabilities predominant with secondary school children.⁶¹

Under the USAID-funded ACR project, implemented by RTI International, all materials are developed with a view to ensuring that children with disabilities are properly supported to meaningfully access Khmer language and literacy lessons in compliance with the MoEYS policies of maximum access and adhering to curricular standards.

In Cambodia, educating children with disabilities centered on elementary school students, and in 2016 services were expanded to early childhood and secondary education. There are two NGOs that specialize in CWD education:

- Nomar Pikar supports children with mild to severe disabilities, as well as their families.
- The Rabbit School educates children with intellectual disabilities in one school in Phnom Penh.

Neither of these foundations receives MoEYS support.

The NGO Krousar-Thmey Foundation handed over to the government in 2019 its school for children with disabilities. It is now known as Thmey Special Education High School, and it is run as a public high school. Thmey educates children with visual and hearing impairments in eight schools in five cities: Phnom Penh, Siem Riep, Battambang, and Kampong Cham and Siem Riep. The GBA team visited the Thmey Special Education High School to introduce teachers to the Global Digital Library (GDL) and its audio and Braille capabilities. The school educates over 100 pupils who are hearing impaired in grades 1–12. Thmey is required to order books from the MoEYS' National Institute of Special Education, which also develops titles that correspond to the regular curriculum for students who are blind and deaf. There is a shortage of books in sign language, although they are available up to grade 5. Grade 6 books are currently under development, and grade 7 will begin after the grade 6 books are completed. Teachers supplement the gap with regular books, and students learn by rote and copy

These survey figures are not indicative of the region's statistics. It is estimated that around 5%–6% of children in Southeast Asia, aged 0–14, have a disability. https://www.who.int/publications/i/item/9789241564182

⁶¹ Akiro, "History and Current Situation."

materials from textbooks or blackboards into notebooks. Posters of the signing alphabet are hung on walls. Most of the teachers are deaf, as are all the students, some of whom also have other special learning needs. As of February 2020, no new books had been replenished, although the school year began in November 2019.

Printing

Two printers in Cambodia that have the capacity for high-volume print runs dominate textbook manufacturing: Sindy Printing (Golden Printing Ltd),⁶² a privately owned company, and the government-owned parastatal PDH.⁶³

Sindy Printing has a modern facility but its production process, by international market standards, is more expensive. It has high-end automatic equipment for finishing with an output of 5,000-6,000 finished books per hour.

The PDH is located in the center of Phnom Penh, which is not ideal due to traffic and environmental concerns with chemical use. The equipment is not suitable for large quantities, and it has no finishing capacity. The PDH is only able to meet demand through a year-round work schedule guaranteed by the 50% share of MoEYS' textbook order. In addition, the PDH prints 2.2 million extra textbooks, which it sells in the open market for approximately \$2–\$2.50, as well as in corporate social responsibility sponsorships.

The PDH subcontracts to Sindy Printing which has been awarded tenders for printing textbooks for the last three years without competitive tendering. The procurement committee justifies this practice due to (1) the lack of response from Cambodian printers when the bid was competitively tendered three years ago and (2) the limited capacity of Cambodian printers to produce 2.7 million books.

There are many other competent printers with machinery of varying modernity suitable for shorter print runs in Phnom Penh. They are used by NGOs and implementing partners whose print runs are dwarfed by the textbook demand. These printers can deliver a high-quality product at competitive prices and have the potential to expand by training staff and reinvesting in modern equipment. By opening up access and competition to the printing industry, costs of books will drop, and the industry and resulting economic gains will expand.

Machine repair and maintenance cannot be sourced in Cambodia.

⁶² Golden Printing Ltd is a subsidiary company of Sindy Import Export Co., Ltd., which has diverse interests that include importing paper and printing. For simplicity, the company is referred to as *Sindy Printing*.

⁶³ The PDH is involved in printing, publishing, and distribution activities in the supply chain process.

Print Supply Process

Thus far, the PDH has been responsible for the analysis of the textbook replenishment needs per grade, collected at every level of the education system. Once the MoEYS budget is approved in May–June, printing begins before actual enrollment figures are known, with projections based on previous year's data. The primary risk posed by both companies include the added cost for excess paper and other material purchases; this risk will be mitigated once the Track and Trace system is fully operational.

Import Tax and Value Add Tax (VAT)

Cambodia has four types of import duties and taxes that impact the overall cost of goods purchased and sold in the supply chain process. Of them, the 10% VAT and the 7.7% import duties on raw materials (paper) should be examined for elimination. Exemptions are granted by RGC as tax incentives to certain economic agents, and the book publishing and printing industry should be considered. Otherwise, "the cumulative shortcomings are low reading culture, stunted markets, increased piracy, and other (potentially) unethical practices along the book chain."⁶⁴

GBA Findings: Publishing And Printing Strengths

- A director of the DCD was appointed in January 2020 after an extended vacancy in the position.
- New curricula for all grades and subjects incorporating standards of child-centered learning through inquiry and problem-solving-based learning were approved by the MoEYS in 2016.
- Recently, the DCD received training from Hiroshima University on writing and developing textbooks.
- Students with learning disabilities are being supported by the ACR project, implemented by RTI International, who is also developing materials in the Khmer language and in literacy.
- The Special Education Department is implementing the revised MLE action plan to mobilize technical assistance to review all reading and teaching materials for MLE at pre- and primary levels in the existing five languages as well as Jarai.
- The printing industry in Phnom Penh has smaller, more reliable printers with machinery of varying modernity, and it delivers a quality product at competitive prices. It has the potential to grow through staff training and reinvesting in modern equipment.
- Support to MoEYS for capacity building in textbook development through the CDPF is being considered by the EU Delegation Commission with the recent appointment of a DCD director.

⁶⁴ ADEA/AUC/GBA, Continental Framework.

GBA Findings: Publishing And Printing Weaknesses

- There is a lack of trained writers, and textbook development has not included teachers with recent classroom experience. No clear policy has been established on recruiting new textbook authors as well as payment procedures.
- Private sector publishers lack the resources and skills to develop textbooks.
- Although the MoEYS approved the 2016 curriculum, the DCD has failed to get it implemented, due to the MoEYS' efforts to align the standards with other ASEAN countries. Textbooks have not been updated to correlate to the 2016 curriculum. Consequently, the MoEYS has authorized the use of currently available textbooks that comply with at least 60% of the curriculum as an interim measure.
- No detailed analysis has been carried out on the cost of new textbooks, the scope of work and the level of effort required to incorporate the curriculum, despite potential funds being available from the CDPF.⁶⁵
- Nigh import duties (7.7%) and other taxes on paper inflate the prices of textbooks.
- Machine repair and maintenance cannot be sourced in Cambodia.
- Few printers with a capacity for large print runs, which reduce the unit cost of production, are available.

GBA Recommendations: Publishing And Printing

GBA recommends:

- That as part of the high-level recommendation to analyze different models of public and private sector roles in book provision systems, an extensive review of the responsibilities of each organization involved in the textbook publishing process be carried out to create a sector that is open, efficient, and transparent and one that stimulates competition and growth—including ministerial responsibilities in curriculum development and textbook authorship.
- That as part of this analysis, the MoEYS consider transitioning the PDH away from publishing textbooks to concentrate on printing and distributing books, including essential reading materials. The DCD would set the curriculum and standards, and private publishers would compete in tenders to publish textbook and essential reading materials.
- That as part of this analysis, the MoEYS could also consider sourcing the printing of its textbooks in an open, competitive market. As with the quality of content, the DCD should be charged with quality control of printing.

⁶⁵ The CDPF contains \$20.2 million in funds.

- That if the above-mentioned out-sourcing of printing by the MoEYS is achieved, the PDH should be restructured and undertake the following measures to remain viable:
 - Invest in modernization for price competitiveness with capital raised by (1) privatization; (2) partial flotation on the Cambodia Securities Exchange; and (3) selling its very valuable premises in the center of Phnom Penh and moving to a provincial industrial site.
- That the elimination of the 10% VAT and 7.7% import duties on raw materials (paper) should be considered.
- That a pool of writers be established and trained for all subjects.
- That MoEYS commission an analytical report on the total project costs for producing new curriculum-compliant textbooks in each subject for all primary school grades 1–6.

SCA Phase IV: Procurement and Purchasing

Procurement and purchasing is the acquisition of books and texts to support reading acquisition. In the education sector, the largest procurer of books is often the government, which will select vendors, establish payment terms, negotiate contracts for per unit and print run prices for reading materials, and issue payment to vendors. Purchasing may also involve non-standard financing models, such as the use of Advanced Market Commitments or purchasing consortia. Individual teachers, families, and students are also book consumers and may purchase books depending on their ability to pay for them.

In Cambodia, the largest procurer of books is the RGC. Because content development is handled by the PDH, the only procurement tenders issued are for printing and distribution.

Government Procurement Process for Printing and Distribution

After the total of required materials is calculated, the Procurement Unit of MoEYS uses the Cambodian Standard of Documents on National Bidding Competition to define the procurement for printing and distribution. As discussed above, for the last three years, the PDH has produced 50% of the textbooks by subcontracting from a single bidder, Sindy Printing. This process appears to be a construct to get around the regulation while allowing the Procurement Unit to open the proposal to only one bidder; the only printer having the capacity to do it.

The \$5 million textbook procurement is neither divided into smaller lots, which could be handled by smaller printers and thus expand local industry, nor opened to international competitive bidding, which could radically reduce the cost of textbooks. Such inefficiencies in procurement hamper the timely arrival of books to classrooms.

Textbook Private Sales

Textbook sales to nongovernment buyers increase annually by approximately 10%, which include the 2.2 million sold by the PDH. Purchases can be made directly from the PDH, whose bookshop also offers a range of books from various publishers, or through Telegram, an online platform.

Books for Private Schools

Educators in private schools must teach based on the national curricular standard, but they may use whatever books they wish. In addition to the PDH bookshop, bookshops and market stalls offer various packages of PDH textbooks as well as individual copies.

Price of Essential Reading Materials

For schools, price is crucial as multiple copies of each title are needed, and since purchases are decentralized and schools have limited school operating budgets, individual schools do not have the buying power to negotiate substantial discounts with publishers and wholesalers. Thus, quality may be compromised due to the quantity needed. NGOs, on the other hand, are able to negotiate reasonable prices according to the quantity supplied to in-school libraries.

The Global Book Alliance in Action (GBAIA) team found that the cost of ERMs in bookshops and market stalls and the resistance of parents to purchase ERMs increased with the distance from the wholesale markets in Phnom Penh. Very few parents invest in ERMs for their children, while middle-class customers in Phnom Penh are willing to pay \$5 or even \$7 for a book. For the poorer population, books are nonessentials and are judged by the length of the text.

Pirated copies

It was noticed that Room to Read (RtR) books, which are restricted to school libraries, were available for sale in small bookshops and at (at least) two book stalls near schools in Kandal province, an area not serviced by RtR.

GBA Findings: Purchasing Strengths

- The industry is established within Cambodia to accommodate increased production of ERMs should MoEYS funding be made available.
- As an ASEAN member, Cambodia could negotiate favorable trade agreements on raw material for book production.

GBA Findings: Purchasing Weaknesses

- Printing and distribution contracts for textbooks lack transparency and exclude international bidding.
- There is no MoEYS funding for ERMs to encourage literacy.

- ERM purchases are decentralized at the school level through the School Operating Budgets⁶⁶ and are often a low priority for school directors.
- The current system of copyright of textbooks by the parastatal PDH restricts competition and tends to inflate book costs.

GBA Recommendations: Purchasing

GBA recommends:

- That the government consider revising its procurement laws to ensure pricing efficiency for the purchaser (MoEYS) by including international competitive bidding on all contracts of more than \$100,000.
- That the printing industry lobby the General Department of Customs and Excise of Cambodia for a tax refund system on paper used to produce education materials.
- That the MoEYS allocate a budgeted library grant for each primary school to be paid directly to the school operational budget and ring-fenced for the purchase of ERMs.

SCA Phase V: Distribution Management

Distribution management encompasses the organization, oversight, and activities involved in moving books from the point of origination to the point where learners access them, and it includes packaging, inventory, warehousing, and logistics.

Even when challenges related to title development and procurement have been addressed, books may not make it to the classrooms and the children they are intended to benefit. This can happen for a myriad of reasons, including challenging conditions of climate and geography, inadequate transportation infrastructure, unrealistic distribution budgets and timelines, corruption in the supply chain, and more.

Book Distribution in Cambodia

In Cambodia, the PDH and Sindy Printing are responsible for textbook distribution. The PDH and Sindy Printing deliver books to school districts across Cambodia, with the latter technically responsible as the head contractor. Once the books are printed, they are inspected by the RGC Procurement Committee. The PDH distribution takes about two months delivery time.

The distribution of books has been facilitated through considerable advances already undertaken in upgrading and building new roads and bridges with donor funding, particularly from the Chinese and Japanese governments.

⁶⁶ Total allocation for school operating budgets is \$31.2 million (MoEYS 2020 budget).

The geographical accessibility of schools is not recorded either in the Public Education Statistics and Indicators or by the PDH or Sindy Printing. Under the current system, all textbooks in Cambodia are delivered by road to DOEs where they are then collected by school directors. All DOEs are accessible under normal seasonal weather conditions. Transit to and from a few schools is occasionally impeded by flooding during the rainy season, but the improvements to transportation infrastructure renders this problem increasingly rare.

Markets and Bookstores

In addition to officially distributing textbooks to schools, PDF and Sindy Printing distribute books to markets and bookstores, where parents and others can buy them.

Orussey Wholesale and Retail Book Market

Orussey Market is Phnom Penh's largest wholesale market selling a large variety of items. It includes a section of booksellers that offer textbooks, answer booklets (grades 3–12), novels, locally published SRMs, as well as a plethora of reading and learning materials. The GBAIA team visited two bookshop keepers at Orussey, both of whom had been operating there for over 20 years.

The best-selling items are MoEYS textbook packages. As noted, textbooks are supplied at no cost to public schools, but parents of private school students or those needing additional textbooks buy from local markets. A ministry textbook package (three textbooks: math, science, and Khmer) will generate a profit of about US\$0.14 per set. There is no set sale price by MoEYS, thus retail shop owners negotiate directly with the customer. Retailers who sell outside Phnom Penh primarily purchase their stock from Orussey.

Language books for learning to read English are the second highest books in demand. These books are often imported from Vietnam. English alphabet practice books are also available and sell for US\$0.36 as opposed to similar items produced by MoEYS that are sold for US\$1.23.

Supplementary readers are sold in Orussey as well as in other bookstores that also offer a variety of textbooks. To buy one or two books, customers will go to smaller retail shops, but for bulk purchases, they will go to Orussey. One bookseller interviewed buys less expensive books from Orussey for resale in retail and wholesale. However, expensive books (US\$8 and above) are bought directly from the author/publisher and are then sold to individuals and retail bookstores as well as to Orussey. Authors approach booksellers to promote their new books, where the market is initially tested and more books are purchased based on demand; discounts are offered on subsequent orders.

The booksellers were both asked what the price of supplementary readers is for parents in the provinces, and both indicated that the price would be US\$0.24 for parents and US\$0.19 for wholesalers. Shipping is reasonable, usually priced at \$2.5 for a parcel.

Sipar Distribution

Sipar has its own distribution system, which includes shipping books directly from the printer to its warehouse located in central Phnom Penh. The books are eventually delivered in Sipar's own vehicles to the following:

- NGOs Make up 70% of Sipar's sales.
- Branches of 40 large urban bookshops IBC, Peace Book Center etc., located in the centers of Phnom Penh, Siem Riep, and Battambang. Bookshops receive a 30% reduction in the sale price.

Deliveries are made in the following ways:

- Tuk tuk for deliveries in Phnom Penh
- Taxis for deliveries to the provinces
- Duses to the 300 libraries located in all provinces
- Private Distribution Providers

There are few independent distributors. DHL covers the country, but it is not economically viable for large distribution involved in the book trade. The Cambodian subsidiary of Bolloré Logistics⁶⁷ is a highend, fully functioning operation that provides distribution for smaller projects funded by UNICEF and the United Nations (UN). At the other end of the spectrum are the informal distribution services used widely in all branches of commerce in Cambodia, including local taxis and minibus taxis. These are typically used for shipments to the provinces, that is, to bookshops acting as regional wholesalers as well as to NGOs. Distributors and vendors acting as representatives for urban bookstores collect the consignments themselves.

Track and Trace

To address the delays and the inefficiencies of the current paper-based system, the World Bankfunded Enhancing Book Distribution in Cambodia project (implemented by World Education and John Snow, Inc.) designed the Track and Trace system, a technological solution designed to increase the visibility and efficiency of the textbook supply chain.⁶⁸ Track and Trace has three main features:

- 1. Timely data reporting: Schools report timely data and Track and Trace assists in accurately projecting book needs for budgeting and procurement by the central ministry.
- 2. Real-time tracking: Tracks real-time distribution of textbooks, identifies problems—delayed, missing, or damaged books—and takes timely action.

⁶⁷ Bolloré Logistics (Cambodia) Ltd is the Phnom Penh office of the international French conglomerate Bolloré. Publicly quoted on Paris Bourse as 1 of the 500 largest companies in the world.

⁶⁸ Funded by the World Bank through the Results for All Children Reading (REACH) Trust Fund. https://www.jsi. com/project/results-based-financing-for-enhancing-book-distribution-in-cambodia/

3. Community Engagement: Engages school communities to confirm receipt of books and conducts classroom spot checks to ensure textbooks are available.⁶⁹

Under the Track and Trace system, the distribution process is largely automated with school directors sending book projections electronically via the Track and Trace Telegram⁷⁰ chatbot to the central server, which automatically calculates the projections used by the MoEYS to determine budgeting, procurement, and disbursement requirements.

In mid-August 2020, the Track and Trace system was launched nationally with school directors registering onto the platform and training carried out as needed. As of March 2021, nearly 100% of school directors were using the system to track books. Training and ongoing support will be required for a wider range of ministry staff and SSC representatives as implementation expands, which can be provided through digital training resources, such as online videos, text messages, and e-learning courses.⁷¹

The PDH has enthusiastically taken on the annual cost of scaling the system up nationwide, which is estimated to be less than US\$10,000.

The COVID-19 pandemic was disruptive to the Track and Trace rollout in a number of ways. The complete closure of the PDH for a short while, use of government staff for the vaccination rollout, school closures, sporadic lock downs, ongoing school closures, and the continued impossibility of conducting any in-person trainings as planned in the final phase all resulted in various delays and holds on project activities.

Track and Trace – Distribution Auditing

Under the Track and Trace system, the distribution lists for the schools are automatically generated from the system, reducing both data entry time and the possibility of mistakes. Deliveries are planned in a timely manner. The shipment is registered when leaving the printing house, allowing the PDH, as well as the various levels of the ministry, to monitor the delivery. At the schools, the DOEs, school directors, and/or the SSC director confirm receipt of the books delivered and send confirmation of the amount. This cross-check in the system will help to prevent possible fraud and galvanize the SSC into an important community role. Unfortunately, school closures due to the pandemic meant that these confirmations have not yet been fully possible.

⁶⁹ For more information on Community Engagement in Monitoring, please see Phase VI: Active Use.

⁷⁰ Telegram is a cloud-based instant messaging and voice-over-IP service. The software used is Salesforce. Telegram client apps are available for Android, iOS, Windows Phone, Windows, macOS, and Linux.

⁷¹ The World Bank, Can Transparency and Incentives.

Results-Based Financing Efficacy

The Track and Trace system is designed to support results-based financing (RBF), although it was not included in the initial phase of the project. Currently, printers and distributors are paid 100% of their contract value, but they must pay a 10% security deposit. The ministry's Procurement Review Committee releases this payment once all criteria have been met, that is, all receipts have been reconciled and spot checks through both calls and visits to random schools confirm receipt of books.

There is great potential for the RBF incorporation into the Track and Trace systems, and it had been addressed during the pilot phase of implementation. Because stipulations would have needed to be included in the purchaser and distributor contracts, there had not been the time to do so. Government procurement experts support incorporating RBF to ease procurement obligations and thus facilitate access to competing distributors.⁷²

GBA Findings: Distribution Management Strengths

- Considerable advances have been made in upgrading and building new roads and bridges across the country.
- The pilot phase of the Track and Trace system, which will significantly decrease delays in data reporting, was successfully rolled out, and the nationwide implementation launched in August 2020. Milestones include:73
 - >> Track and Trace has been uploaded with paper-based request data to create a national allocation list and to print shipping documents and receipts.
 - » MoEYS has taken over running costs and is using the Track and Trace dashboard to monitor platform activity.
 - >> School directors are currently registering on the platform (85% as of the end of 2021) and have begun to confirm books.
- The Track and Trace system automatically generates distribution lists for schools, requiring a cross-check by teachers and the SSC, which mitigates potential fraud and galvanizes community participation.
- A plethora of markets offer textbooks and other reading materials for private schools and parents.
- An established distribution system supports the sale of books for the wholesale and retail markets.

⁷² The World Bank, Can Transparency and Incentives.

⁷³ Day and Hatch, Track & Trace Books Cambodia.

GBA Findings: Distribution Management Weaknesses

- The division of book distribution between contracting printers and the PDH adds to potential confusion.
- No system exists to rectify mistakes by redistributing oversupplies to the schools with shortages.

GBA Recommendations: Distribution Management

GBA recommends:

- That distribution is open to an independent private sector distributor, which is procured through a national competitive bidding to ensure best value.
- That GPS coordinates be linked to all schools within the EMIS system and all packages be labeled with bar codes to facilitate tracking.
- That in-time training be developed for all Track and Trace users, of all staff levels, and that adequate support provided.

SCA Phase VI: Active Use

Active use refers to the effective use of books by learners and their teachers, as well as by children's families and caregivers. The impact of adequate provision of ERMs and SRMs on children's development of reading skills hinges on effective book use in classrooms and homes. Factors that impact book use, both inside and outside of school, are therefore essential considerations in analyzing the book chain. Evidence has shown that teachers and families often lack knowledge of the importance of reading practice and how to support it effectively. Further, unstable book supplies and penalties for book damages can lead teachers to restrict access to books, and delays in distribution mean that teacher trainings occur without any of the materials teachers will be using in the classroom.

Active Use in Schools

School Libraries and Book Promotion

The MoEYS, in its efforts to improve the low literacy rates of primary school-aged Cambodian students, has collaborated with NGOs and other partners to implement community initiatives that supported reading skills development and learning outcomes. In 2011, Standards for Primary School Library were established to ensure greater quality and effectiveness of library facilities, and were based on an evaluation of:

- Personnel Librarians Staffed and Training
- Library Facilities and Resources

Using this framework, the GBAIA team made the following observations in visiting several schools, selected at random, and found them consistent with those in the brief study carried out by the MoEYS and World Vision in 2016.75

Libraries differ from school to school but in those visited, no ERMs were used in classrooms; rather, they were stored in libraries and children had little to no access to them. In theory, books can be borrowed from the school libraries for up to three days, but in the one visited by the team, there was no data because the school had no librarian, although the school requests a librarian each year. The library was clean with a random collection of books that included reading books in English and old versions of textbooks. In general, the libraries visited did not include the types of ERMs needed to support early literacy development. Activities and furniture were limited, and although books could be taken out in theory, if children were to lose or ruin them, they risked having to buy replacements.

The teachers stated that parents' attitudes to books were a barrier to reading. This observation is consistent with publishers' views on the lack of a reading culture as well as the following parental issues:

- Ocncerns about value for money in book purchases (i.e., parents believe that the fewer words on the page means less value)
- Belief that books should probably not be given to very young children since they cannot read
- Preference for older titles and cultural legends over new titles
- Lack of resources in general
- Predominance of phone technology in households

Even if parents can afford and are willing to buy ERMs, most are unaware of where to buy them and face the challenge of a dearth of sales outlets. Textbooks are available in the local market, but quality ERMs are not.

Teachers were enthusiastic about promoting books and reading but stressed the need to include the community and parents and emphasize that education is not the responsibility of teachers alone.

Active Use in Communities

There is a widespread view among educators—academics and stakeholders—that Khmer society is not a reading culture. Various reasons are offered. Some argue that Cambodia is historically a literate society, with a long tradition of writing, and that the problems related to reading are due to the country's recent history. Others argue that Cambodian society is largely an oral culture that has never placed great value on the written word.

⁷⁴ World Vision. Current Situation & Use.

World Vision. Current Situation & Use.

Thus the country is at a pivotal juncture to educate and rely on parents and communities—with their interests in technology, social platforms, and level of connectivity—to further access reading through cultural and innovative means.

Book Fairs

Phnom Penh held its first Cambodia Book Fair in 2011, attracting 1,000 visitors over three days. In December 2019, its eighth year, the fair attracted 180,000 attendees and included 140 stands making it the biggest commercial fair in Cambodia (in terms of number of visitors). It employed 200 volunteers and sold 300,000 books with a retail value of more than \$1 million. The president of the Cambodian Library Association is the book fair chairman. The event is organized by the Cambodian Library Association and run by a steering committee composed of a cross-representation of individuals in the book trade. All types of books are showcased, from children's books to novels to nonfiction, in Khmer as well as English.

Other book fairs include the IBBY International Children's Book Day, held in April, as well as an annual book fair organized by the government, and a Khmer Literature Festival, held yearly in October. There is an increasingly vibrant Kampot Readers and Writers Festival, held for five days each year in the river town of Kampot.

Mobile Libraries

Sipar runs 17 mobile libraries. Individual sponsorship of one mobile library covers the entire operational costs to run the program for three years—\$30,000 for the first year and \$15,000 for each subsequent year. Each van has a nine-village weekly circuit and is stocked with books for 1- to 14-year-olds. Most borrowers also attend the one-hour library sessions offered.

Sipar also runs libraries at all 26 prisons and at 25 garment factories. These latter programs stock books for younger age groups, and mothers, many of whom are illiterate, borrow them for their children.

Aide et Action provides community-level mobile libraries that are managed by the local councils. Every week, customized tuk tuks visit 90 villages, with each tuk tuk visiting 10 to 12 villages. Annual operating costs are approximately \$1,200, which includes the tuk tuk, library stock, and small stipends to the volunteers. Each tuk tuk carries about 700 books that have been purchased in the market—usually three copies of each title. Each tuk tuk stays about two hours in each location and attracts 10-30 pupils per visit. Children sign out books that are invariably returned. There is little loss of books and no punishment for damage to books.

The Steering Committee is composed of sector representatives, including the director of the National Library; the former director of Pannasastra University Library; the director of the Library of the General Assembly; Hok Sothik, president of the Cambodian Library Association, chairman of the Cambodian Book Fair and the director of Sipar; as well as representatives from Room to Read, Shanti Volunteer Association (SVA), and the French Institute.

Reading Days

The RGC has acknowledged literacy and reading problems and has initiated social events to raise public awareness through the National Reading Day. The seventh National Reading Day, with the theme "Reading Promotes Quality of Life in Digital Society," was held virtually in March 2022.

Community Engagement in Monitoring

Student Support Committees (SSCs) can be instrumental in promoting public awareness as well as conducting classroom spot checks to ensure textbooks are continuously available to children. This method was successfully used in the pilot phase of the Track and Trace, during which 44% of the participating SSCs acknowledged receipt of books in the first delivery, despite technical glitches. This increased to 70% five months later. SSCs conducted spot checks on the use of books in classrooms, which was the first time that teachers and school directors were held accountable by community members for how the books were used.⁷⁷ While it has been generally thought that SSCs have had significant oversight of school management in Cambodia, studies have shown that the accountability mechanisms in schools to monitor operational spending are rather ineffective, particularly in small schools.78 However, recent partnerships between civil society and key NGOs, such as the Khmer Institute for National Development (KIND) and the Affiliate Network for Social Accountability-East Asia and the Pacific have provided new and effective social accountability means. The collaboration supported a textbook monitoring program at the secondary level that included training in social accountability tools. The media played an instrumental role—through its use of radio broadcasts, print and online media, and social media campaigns—in this successful collaboration by not only distributing the results of the research but also encouraging public engagement.

GBA Findings: Active Use Strengths

- Teachers' enthusiasm for promoting books and reading include community and parents.
- Ocambodia's seventh National Reading Day held in 2022, an annual event sponsored by the MoEYS, indicates the awareness of a need for more active use.

GBA Findings: Active Use Weaknesses

- School directors are worried about loss of books bought from discretionary budgets.
- Libraries are sealed shut and underused.
- There are many selections of ERMs for children but they are not making their way regularly to schools.
- There are insufficient books and other learning materials in classrooms for students with sight and hearing disabilities.

⁷⁷ The World Bank, Can Transparency and Incentives.

⁷⁸ Benveniste, Marshall, and Araujo. Teaching in Cambodia.

GBA Recommendations: Active Use

GBA recommends:

- That training and exposure through social media engagement be carried out to emphasize the need for increasing ERMs in the primary classrooms and advocating for children with disabilities (CWD). The energy and commitment of the School Support Committee (SSC) could thus be galvanized to advocate for literacy and inclusion within Cambodia's education objectives.
- That book conservation, fortifying covers and binding, be taught to children in classrooms.
- That schools ensure that libraries are well-stocked and monitored and that books are available for children to take home.
- That teachers and parents are instructed, through literacy advocacy activities, such as radio messages and workshops, on the use of essential reading materials (for both classroom and home) and basic library organization.

CONCLUSIONS

Cambodia has an established book supply chain for textbooks, but fundamental weaknesses continue to hinder the effective implementation of reforms outlined in the MoEYS's Book Strategy 2.3 of the *Education Strategic Plan 2019–2023* which aims to "improve the supply and utilization of core textbooks and other teaching and learning materials." In addition, there is no consistent and adequate funding for ERMs. The purchase of ERMs is left to each school's operations budget, and the lack of ERMs in classrooms means that children are not learning to read as they should.

There is a very limited private publishing sector in Cambodia, although there has been growth in the past few years. Because donor-funded projects and NGOs focus on specific regions, they cannot fill the gap left by the lack of private sector publishers.

The Cambodian culture is historically oral and not oriented towards print materials.

There also exist challenges of a more systemic nature that can only be solved by a fundamental reassessment with resolute political solutions if there is to be a robust and cost-effective supply chain. A comprehensive evaluation on the book sector implementation plan would include the following: (1) comparative cost benefit analyses of different strategies involved in the funding for ERMs, (2) greater private sector involvement in the delivery, printing, and publishing of books, and above all, (3) building capacity for the development of new textbooks that includes a revised curriculum based on inquiry and problem-solving-based learning through child-centered methods.

The process will require continued and significant donor engagement, both technical and financial, with the continued transition to the RGC and the private sector. The establishment of a GBA Joint Book Development Working Group (JBDWG) with representatives from the donor community, the MoEYS, and printers and publishers is a first priority for this process.

The JBDWG should then consider commissioning a Cambodia National Book Sector Development Plan (BSDP) to address the topline issues described in this report, as well as the recommendation for each phase of the book supply chain included here. The BSDP will project over the next 20 years to engage the private sector and build a sustainable supply of books, ultimately funded by the RGC, and allow donors to develop exit strategies.

The BSDP should consider strengthening partnerships between local publishers and NGOs with the goal to not only create Cambodian content, but to also build an independently profitable and self-sustaining industry. The plan might also include allocated ring-fenced funding to guarantee placement of ERMs in school classrooms and/or libraries.

These modifications to the current system will allow for a thriving reading and book culture, with appropriate and available books for all of Cambodia's children in the languages they use and understand.

ANNEX 1: RESEARCH PURPOSE AND RESEARCH QUESTIONS

The purpose of the GBA book supply chain analysis is to ascertain the strengths and weaknesses of the book supply chain in each of the countries visited and to both provide an analysis of the particular country and contribute to global understanding of the challenges that face book supply chains in developing countries. These challenges are not the same in any two countries, but by investigating eight countries diverse in size, geography, and culture, the GBAIA research will shed light on common challenges that can be addressed by the appropriate stakeholders. Cambodia was the second country to be chosen.

The outcomes from the research are twofold:

- 1. Recommendations for Cambodia to take in order to strengthen its supply chains
- **2.** At the end of the GBAIA research, guidelines to enable stakeholders—governments, donors, implementing partners, UN agencies and NGOs—to investigate any national book supply chain and identify opportunities for improvement.

The findings of all SCAs can be used to present options and inform decisions for strategies with quantifiable indicators of achievable outcomes.

Using a project framework that was designed by the GBAIA team, along with material input from the GBA Steering Committee and USAID, the following research methodology was planned.

Methodology

The methodology used to gather information in-country included consultations and interviews with a full range of 57 stakeholders.⁷⁹ The stakeholders were classified into nine groups according to their areas of involvement in the supply chain. Prior to travelling to Cambodia, the GBAIA team had prepared a list of 276 questions, divided into 48 categories, with each category representing a key element of the functions that are carried out in any book supply chain. The questions were distributed to ensure that each category of question was asked to at least one person in three of the nine stakeholder groups. Their responses were then compared so that information could be triangulated.

⁷⁹ For details of sources of information and people interviewed, see Annex 3: Cambodia Reading and Book Projects.

Questionnaires were not used in the research. The team produced protocols that listed the questions to be asked during interviews for each of the nine groups.80 Interviews lasted for approximately one hour, and the majority of interviews were attended by two team members, with both taking notes. Notes were compared and discussed by the whole team at the end of every second day. Interviews were flexible and conducted in a manner to encourage probing and further inquiry. Investigative protocols were developed from the project framework, which were used to provide an overview of the supply chain and to indicate points where intervention may improve the function of the entire system.

⁸⁰ See Annex 2: Tools Used & Research Methodology.

ANNEX 2: TOOLS USED AND RESEARCH METHODOLOGY

The method of collecting information was through consultations and interviews with a range of stakeholders who were formed into nine groups according to main areas of involvement. These were:

- Ministry of Education, Science and Technology
- Overnment Budgeting and Finance
- National Statistics Office and EMIS
- Donors and implementers
- Publishers, retailers and wholesalers

- Printers and binders
- Packers and distributors
- District education manager and school head teachers
- Teachers, parents and women's organizations

Prior to traveling to Cambodia, the GBAIA team prepared a list of 276 questions, both specific and general, covering 48 categories:

- 1. Economics Statistics and Politics
- 2. Infrastructure
- 3. Connectivity
- 4. Government Policies and Practice
- 5. Financing Books
- **6**. Languages for Reading and Writing
- **7**. Teachers
- 8. Reading Assessment
- 9. Estimating Demand
- 10. Costing Books
- 11. School Ordering
- 12. Income Sources for Publishers
- 13. Government Expenditure on Books
- 14. Plan Cash Flow
- **15**. Give Each Title a Progress Timeline
- 16. Write Manuscript and Draw Illustrations
- 17. Survey of Reading Materials
- 18. Market Map
- 19. Investigate Local Digital Publishing

- 20. Publishing Human Resources
- 21. Obtain, Adapt, and Translate Foreign Titles
- 22. Piracy Assessment
- 23. Import Foreign Published Books Direct
- 24. Government Procurement Policy
- 25. Procurement Methods
- 26. Writing Procurement Documents
- 27. Book Selection
- **28**. Use Contract as Set out in the Procurement Document
- 29. Editing
- 30. Designing and Illustrating
- 31. Copyright
- 32. Proofing and Piloting
- 33. Preparing Camera Ready Copy files
- **34**. Printing
- 35. Packing and Labelling
- 36. Insurance
- 37. Customs clearances

- 38. Warehousing
- **39**. Logistics
- 40. Tracking Consignments
- 41. Delivery to book and Stationary Shops, Stores and Market Outlets
- 42. Receiving and Checking

- 43. Sorting, Maintenance and Storage
- **44**. Replenishment
- 45. Classroom Distribution
- 46. Use in Classroom
- 47. Home Use of Books

Protocols

Six protocols were used for research in Cambodia. They were numbered and titled as follows:

- 1. Interview Protocol 2 for Donors and Implementers
- 2. Interview Protocol 4 for Publishers
- 3. Interview Protocol 5 for Retailers and Wholesalers
- 4. Interview Protocol 6 for Printers, Binders, Packers and Distributors
- 5. Interview Protocol 10 for National Statistics Office and Internet Providers
- 6. Interview Protocol for MoEYS

All are available, but for reasons of space, only one sample is given here: Interview Protocol 10 For National Statistics Office and Internet Research.

INTERVIEW PROTOCOL 10 FOR NATIONAL STATISTICS OFFICE AND INTERNET RESEARCH

GENERAL INTRODUCTION

- A. Ask for permission to record
- B. Ask whether the report can use the interviewee's name or identifiable job designation
- **C.** Briefly introduce GBAIA and the SCA including purpose and methodology and how the information will be used
 - a. State what the outcomes needed are
 - **b.** What happens in theory?
 - c. What happens in fact?
 - d. What are the things that are working well?
 - e. What are the bottlenecks?
 - f. What is the timeline for these links?
- D. Show and explain as necessary the supply chain major link by major link
- **E.** Demonstrate the stakeholder's part in the Supply chain

SPECIFIC QUESTIONS

Economics Statistics & Politics

What is the latest population figure?

What percentage of the population are 0-9 years old?

What is the rate of economic growth?

What is the average household income?

What is its purchasing power?

Write Manuscript and Draw Illustrations

What local languages are commonly used and by what percentage of the children?

Infrastructure

How many lake ports handle freight?

How many airports handle international and local freight?

Connectivity

What proportion of the population can access the internet on a daily/weekly basis in their home/ school or a community center?

What percentage of primary schools have internet connections that are functional daily? (Internet connections/includes internet access that is strong/fast enough to be used for accessing books/basic digital learning content.)

What proportion of the population has access to an operational mobile phone on a daily/weekly basis, including airtime?

What is the level of coverage by cellular networks?

Logistics

What are their reported challenges with distribution that are associated with certain areas?

Is there a post code system?

Languages for Reading and Writing

Is there a map of language use within the country?

What languages are in regular use by those residing in the country? What is the population and geographic distribution of users of each language?

Teachers

What are teacher salary levels?

ANNEX 3: CAMBODIA READING AND BOOK PROJECTS

NGO, Agency, & Implementing Partner	Donor	Project/ Program	Dates	Description
OPIFER – Finland	Asian Development Bank (ADB)	Basic Education Textbook Program (BETP)	1997	

NGO, Agency, & Implementing Partner	Donor	Project/ Program	Dates	Description
Aide et Action	Educate a Child	Education for All: An Integrated Approach from the Cambodian Consortium for Out of School Children (CCOSC)	Ongoing	As part of the CCOSC, Aide et Action provides comprehensive, inclusive education systems that cater to every child. Activities include school mapping, out-of-school children identification, school renovations, mobile education, MLE, non-formal education, and teacher capacity development. Aide et Action conducts the following activities: School libraries Khmer library app: *** 847 PDF books *** 245 audiobooks Translations into minority language books Mobile tuk tuk library Books for out-of-school children **Keywords: school libraries, minorities, textbooks

NGO, Agency, & Implementing Partner	Donor	Project/ Program	Dates	Description
The Affiliated Network for Social Accountability (ANSA)	European Union and the Ministry of Economic Cooperation and Development (Germany)	Increasing Textbook and WASH – For primary schools in Ratanakiri	2017–2018	The Increasing Textbook and WASH for primary schools in Ratanakiri was part of a larger grant program titled Tackling the Implementation Gap in Education Reform, Mobilizing Civil Society. It was coordinated by the NGO Education Partnership (NEP) and DVV International. Its objective was to contribute to improving the education service through feedback mechanisms and rapid response. The project also engaged youth to monitor textbook delivery, WASH activities, and advocate access to these services in 60 primary schools in three districts (Veun Sai, Ta Veng, and Bor Keo) of the Ratanakiri province. Keywords: textbooks, youth volunteers, WASH, monitoring of textbook delivery
CARE – Cambodia	N/A	Ethnic Minority Education	2019–2022	The objective is to increase student enrollment and retention rates in primary and lower secondary schools by improving the quality of education, school conditions, and inclusive child-friendly learning environments, particularly for ethnic minority girls. Sample activities include sport training and equipment, teaching 21st century skills and sexual and reproductive health, etc. in Mondul, Kiri, and Ratanakiri provinces. Keywords: inclusive education, teacher training, textbooks and materials, girls
CARE – Cambodia	N/A	Education for Ethnic Minorities	2013–2017	The project's goal was to improve access to secondary education that promotes cultural diversity and advances education for girls. Sample activities include developing culturally appropriate teaching and learning materials to promote inclusive education. Northeast Cambodia Keywords: culturally appropriate materials, girls

NGO, Agency, & Implementing Partner	Donor	Project/ Program	Dates	Description
CARE – Cambodia	Educate a Child	Ethnic Minority in the Cambodian Consortium for Out of School Children (CCOSC) project	2014–2017	This project aimed to increase equitable access to education by improving quality, including of materials, teaching practices, and research and advocacy to increase school enrollment. For example, the project prepared MLE materials for distribution at schools. Five districts in Ratanakiri Province: Bar Kaev, VeunSai, LumPhat, Koun Mom, and Ou Chum. Keywords: culturally appropriate materials, multilingual materials
KAPE (Kampuchea Action Primary Education)	Asia Foundation	Books for Cambodia Program	2017–2020	The project goal was to promote English reading at primary, secondary, and tertiary education levels, as well as to help universities, the government, and NGOs create a culture of reading and enable access to books. Sample activities included distribution of books and other educational materials and trainings for book organizations. *Keywords: English learning, book access*
KAPE	Phoenix Foundation	Total Reading Approach for Children (TRAC III)	2017–2020	This project promoted children acquiring essential early reading skills through a comprehensive approach that considered the totality of the child's learning environment. Sample activities included provision of literacy toolkit materials, peer tutoring, tablets for M-learning, 21st century libraries, and parental outreach and engagement. Rural areas Keywords: literacy toolkits and materials, rural

NGO, Agency, & Implementing Partner	Donor	Project/ Program	Dates	Description
KAPE	USAID, World Vision, Australian AID, All Children Reading (ACR)	E-books for Khmer (E4K)	2015–2017	The project adopted a technology-based approach for native language instruction and reading materials to improve the reading scores of young Cambodian children. It created the SmartBooks App to improve reading proficiency and promoted and trained teachers in differentiated instruction. Keywords: Khmer, Reading App, Reader levels
KAPE	Asia Foundation	Children's Digital Library	Ongoing	The project goal is to increase children's access to quality reading material using electronic tablets and eBook apps. Keywords: Khmer, Reading App
NGO Education Partnership				NEP is a key focal point for education sector work in Cambodia. NEP is a membership organization working with 144 education NGOs (92 local and 52 internationally based, listed in NEP database in 2018). It aims to promote active collaboration between NGOs working in education and advocates on behalf of its member organizations in policy meetings and discussions with the Royal Government of Cambodia.
Room to Read	N/A	Not specifically project driven		Room to Read, or RtR, provides SRMs to selected public primary school libraries, creates 15 new Khmer levelled SRM titles per year, and promotes a culture of reading.
See Beyond Borders – Cambodia	N/A	Literacy Program	N/A	The program aims to improve the knowledge, methodology, and practice of language teachers for grades 1 to 3 in five schools.

NGO, Agency, & Implementing Partner	Donor	Project/ Program	Dates	Description
Sipar NGO – International	N/A	Primary schools: building libraries and training	1993– present	Sipar established a network of 300 libraries in primary schools and is currently reinforcing school library standards and training librarians. Keywords: libraries, training for librarians
Sipar NGO – International	SMART Axiata	Reading for All program: Mobile Libraries	N/A	Nine mobile library vans and one motorbike library operate in 90 sites weekly in the poorest suburbs of Phnom Penh and surrounding provinces (Kandal, Takeo and Kampong Speu), Siem Reap and Ratanakiri. Mobile libraries conduct reading activities and awareness sessions (health, nutrition, STEM, etc.). Keywords: mobile library
Sipar NGO – International	UNICEF	Reading for All program: playground libraries in hospitals	2009– Ongoing	Sipar has established 19 playground libraries in hospitals for patients, primarily children in pediatric wards. Keywords: library
Sipar NGO – International	Self- sustained Smart Axiata (digital)	Book publishing program	2000- present	Service models include selling books to bookstores to support sustainability while free copies are distributed in Sipar-supported libraries. Production is focused on early childhood (0–6 years old); also has digital production of books. Keywords: book production, digital, e-books

NGO, Agency, & Implementing Partner	Donor	Project/ Program	Dates	Description
The Asia Foundation – International	The Asia Foundation	Let's Read (Cambodia)	2017– Ongoing	 The Asia Foundation has established a digital library of local language children's books, including Khmer, that supports production and translations of SRMs. The platform provides the following: A space to bring together authors, illustrators, and editors to produce high-quality children's books in local languages (Book Labs) Translation services through volunteers and local language experts (translation workshops) Partnerships to connect communities, organizations, educators, publishers, and universities to source content and to build a localized and sustainable solution to book scarcity (e.g., Hackathons). Keywords: supplementary reading materials, e-books, Khmer

NGO, Agency, & Implementing Partner	Donor	Project/ Program	Dates	Description
Ministry of Education, Youth and Sports (MoEYS) - Cambodia Implemented	USAID, Global Partnership for Education (GPE), World Education (funder)	Komar Rien Komar Cheh National Early grade Learning Program	4/24/2017- 4/24/2019	The National Early Grade Reading Program addresses Khmer and math for first and second grades. The program provides schools with high-quality materials (teacher guides, story books, alphabet flashcards, and supplementary books), and teacher training on how to use these materials, as well as training in interactive and fun pedagogy. Keywords: Khmer, math, textbooks, teacher guide, teacher training
by RTI International – United States		All Children Reading (ACR) Cambodia		 The project objective was to improve the early grade reading (EGR) skills of children in grades 1–3 in Cambodia, through the following three results: 1. The MoEYS effectively manages, at the national, provincial, district, and school levels, evidence-based EGR programs. 2. Partnerships and coherence are strengthened to support EGR objectives in Cambodia. 3. Assistance is provided for development of a coordinated and harmonized evidence-based EGR, and the writing program, which is feasible, practical, and scalable, is endorsed and implemented in grades 1–3. Keywords: textbooks, supplementary reading materials, Khmer, children with disabilities
VSO – England and Wales	N/A	N/A	2012–2016	The program provided teachers with basic materials for teaching English and supplied SRMs for grades 4 to 6, teacher's guides, audiobooks, key words, and flashcards as well as student books. Keywords: English, supplementary reading materials

Annex 3: Cambodia Reading And Book Projects: Protocols | 63

NGO, Agency, & Implementing Partner	Donor	Project/ Program	Dates	Description
VSO – England and Wales	N/A	Inclusive education	2017– Ongoing	In partnership with the Cambodian MoEYS, VSO increases teacher's capacity and focuses coaching and training on child-centered teaching methods. Keywords: teacher training
World Education, Inc. – United States John Snow, Inc. – United States	World Bank	Enhancing Book Distribution in Cambodia	N/A	 The project objective is to strengthen the book supply chain to ensure children in early grade classrooms have the books they need to learn. The project designed and tested the Track and Trace app—a technology solution that increases the visibility and efficiency of the textbook supply chain. The app supports the following: Schools report timely data and accurately project book needs. The MoEYS tracks distribution of textbooks in real time and can take timely action. Communities are engaged to confirm books arrived and conduct spot checks to ensure texts' availability. Keywords: textbooks, supply chain, technology
World Vision International – Cambodia	N/A	Learning Roots	N/A	This program addresses the development and learning needs of children from ages 3 to 6 years, preparing them for a successful transition to primary school. It has identified 1,000 preschool titles. *Keywords: early childhood*

NGO, Agency, & Implementing Partner	Donor	Project/ Program	Dates	Description
World Vision International – Cambodia	N/A	Unlock literacy	N/A	This program supports children in grades 1–3 to improve five core reading skills (reading with comprehension). It also conducts the following activities: School renovations through community mobilization Advocacy to government certification and book purchases Purchases play materials, uses Bloom software to translate. Keywords: textbooks, supplementary reading materials
Open Institute			2008- Ongoing	 Activities include the following: Developed official ICT textbooks in grades 11 and 12 Pre-school: Developed 12 workbooks to teach writing Khmer and numeracy and a series of 4 booklets to develop fine motor skills (aligned with the pre-school curriculum).
Open Institute	UNESCO STEPCam			Open Institute is working with the Cambodian Primary Education Department (PED) to create a math teacher guide and exercise book for grades 1 and 2.

NGO, Agency, & Implementing Partner	Donor	Project/ Program	Dates	Description
N/A	European Union	EU budget support	2014–2020	Through its multiannual indicative program, the European Union has allocated EUR 140 million to support Cambodia in achieving the following three main objectives: 1. To improve equitable access for all to education services 2. To enhance the quality and relevance of learning 3. To ensure effective leadership and management of education staff at all levels
UNICEF — International	Swedish International Development Agency (Sida) – Sweden	School Improvement Grant (SIG)	2014	Sida awarded a school improvement grant (SIG) to the MoEYS. The objective of the SIG was to ensure equitable access to quality education. SIG decentralized responsibilities and ownership to subnational entities and schools and intensified involvement from stakeholders, including community members, parents, education officials at school, DOE, and Provincial Office of Education (POE) levels to address causes of repetition and prevent dropout and re-enroll out-of-school children. The program works with the Department of Early Childhood Education (ECE), Primary, and Secondary, and the Department of Finance, POE, DOE, and schools across the country.

NGO, Agency, & Implementing Partner	Donor	Project/ Program	Dates	Description
UNICEF – International	EU, Sida, GPE, <u>UNICEF</u> , USAID	Capacity Development Partnership Fund (CDPF)	2011–2023	 CDPF (\$20.2 million) is a multi-year, multi-partner program that aims to strengthen the education sector in Cambodia to ensure that Cambodian children increasingly receive quality, inclusive, and equitable education in more conducive learning environments. A list of implementers throughout the years include the following: 2011–2016: MoEYS technical departments: Department of Planning, Department of Finance, Department of Personnel, Department of Curriculum Development, Department of Primary Education, Department of ECE, Department of Secondary Education, Department of Teacher Training, and Department of ASEAN Affairs 2011–2015 only: Department of ICT, Department of Internal Audit, and Department of Scientific Research 2011–2015 only: National Institute of Education and RUPP 2011–2017 only: CARE Voluntary Service Overseas (VSO) Teacher Education College (TEC)

ANNEX 4: LIST OF PERSONS INTERVIEWED IN CHRONOLOGICAL ORDER

No	Organization	Individual	Date
1	USAID office	John Collins, Education and Child Team Leader	10-Feb
		Sereisatya Ros, Education Project Management Specialist	
2	Poeu Liang Kruy Bookstore (Orussey)	Bookstore Owner	11-Feb
3	Shop 97-98	Bookstore Owner	11-Feb
4	MoEYS	H.E. Hang Chuon Naron, Minister of Education and his team	11-Feb
5	EU Delegation Cambodia	Michele Crimella, Education Programme Manager	12- Feb
6	Asia Foundation	Meloney Lindberg, Country Representative	12-Feb
7	World Education	Kim Dara, Country Director	12-Feb
8	Image Printing	Teav Bandol	12-Feb
9	Publishing and Distribution House (PDH)	H.E. Sok Rithy, Chairman and Director General, PDH	13-Feb

No	Organization	Individual	Date
10	Aide et Action	Samphors Vorn, Country Program Director	13-Feb
		Sokunthearith Makara, Digital Learning Officer	
11	Sipar	Beatrice Ouch Sodany, Editor, Fiction Collections	13-Feb
		Hum Kunthea , Sales and Customer Relations	
12	Sipar	Hok Sothik, Director	13-Feb
13	Room to Read	Vantha Chea, Country Director	14-Feb
14	UNICEF	Katheryn Bennett, Chief of Education	14-Feb
15	Phnom Penh Printing House	Kong Seng Hor, Manager	14-Feb
16	Bookstore in Toul Kouk	Samrang	14-Feb
17	Save the Children	Rany Khoy, Education Advisor	14-Feb
18	Ta Prom Bookstore (Orussey)	Srey Neang , Shop Manager	15-Feb
19	Book World (Orussey)	Dalin , Bookstore Owner	15-Feb

No	Organization	Individual	Date
20	Banteay Srey Bookshop (Orussey) Beeads Design and Advertising	Bunly Srey, General manager	15-Feb
21	The Phnom Penh Post	Vikram Keo , Advertising Sales	15-Feb
22	Publishing and Distribution House (PDH)	H.E. Sok Rithy, Deputy Operation Department Manager	17-Feb
23	Shop 3-4 (Old Market)	Srey Oun,Shop owner	17-Feb
24	Shop 7-8 (Old Market)	Chim Chanthy, Shop owner	17-Feb
25	MoEYS (Department of Planning)	Long Dim ,Administration Office Chief of Department of Planning	17-Feb
26	World Vision Cambodia	Prum Vuthy (Mr.)	17-Feb
27	Thmey Special Education High School	Teachers	
28	MoEYS (Department of General Education)	H.E. Chan Sophea, Director of Primary Education Department Kann Puthy, Deputy Director of Primary Education Department	18-Feb

No	Organization	Individual	Date
29	MoEYS (Department of Information Technology)	Om Chandara, Deputy Director IT	18- Feb
30	GIM Publishing	Phoem Sothan, Managing Director	18-Feb
31	MoEYS (Department of Information and Technology Education Management)	Pong Pitin , Director of Information and Technology Education Management	18-Feb
32	John Weeks	Expert of comics and cottage publishing	18-Feb
33	MoEYS (Department of Curriculum Development)	Sun Bunna, Director, DCD Lim Sotharith, Chief Officer, Planning and Textbook Distribution	18-Feb
34	Diamond Printing	Svorn Vannick, Sales Manager	18-Feb
35	EKP Printing	Oeur Eang, Manager	19-Feb
36	MOEYS (Department of Finance)	H.E. Tep Phyorith, Director of Finance	19 Feb
37	Angkor Thom Printer	Sok Vanna, Manager	19 Feb

No	Organization	Individual	Date
38	RTI	Claire Wyatt, Chief of Party	19 Feb
39	Image Printing	Teav Bandol , Sales Manager	19 Feb
40	Sok Heng Printing	Eav Hok, General Manager	20-Feb
41	Sunbright Publishing	Chhum Sok Hoeun, Owner/ Managing Director	20-Feb
42	Sindy Import Export (Golden Printing Ltd)	Huoth Kunthea, Business Manager Sok Chandavin, Sales Manager	20-Feb
43	Planning MoEYS	Chan Sophea, Director General Education	20 Feb
44	MoEYS Procurement	Ren Sopheap, Deputy Head of ICT in Education Office	20 Feb
45	Sindy Import Export Co. Ltd.	Sok Chandavin , Sales Manager, Sindy Import Export Co. Ltd.	21 Feb

No	Organization	Individual	Date
46	Matey Pack & Co	Chea Sopheak, General Manager	21 Feb
47	Scholar Library	Sok Lak, Co-founder	21 Feb
48	Publishing and Distribution House (PDH)	H.E. Sok Rithy, Deputy Operation Department Manager	21 Feb
49	NGO Education Partnership (NEP)	Seng Hong, Executive Director	21 Feb
50	Orussey Market (Shop No. 30-31)	Sang Sothary	21 Feb
51	TNS Printing/Matey Pack Co. Ltd	Chea Sopheak, General Manager	21 Feb
52	Department of General Education	H.E. Put Samith, Director General of Education	21 Feb
53	Sererpheap (Freedom) Bookshop		24 Feb
54	Bookstore near a school		24-Feb
55	Sindy Import and Export Co. Ltd	Sok Chandavin , Sales Manager-Sindy Import Export Co. Ltd	25 Feb

No	Organization	Individual	Date
56	USAID	John Collins, Education Team Lead	27 Feb
		Sereisatya Ros, Programme Manager, Education	
57	Bolloré Logistics (Cambodia) Ltd	Heang Ly , Import-Export & Warehouse Manager	28 Feb

SJ—Simon James: GBAIA chief of party

JW-Julian Watson: GBAIA technical director for the SCA

RdH—Roel de Haas: GBAIA supply chain consultant

SP—Sophal Nguon: GBAIA national supply chain consultant

PL—Paul Leoung: GBAIA consultant

AK—Aishwarya Khurana: World Bank national supply chain consultant

ANNEX 5: GBA PRINTER AND PUBLISHER MEETING

February 26, 2020 Phnom Penh, Cambodia

To help provide a greater quantity of quality, relevant reading materials to learners and readers in Cambodia, the Global Book Alliance (GBA) organized a meeting of 30 publishers and printers in Phnom Penh. The event provided an opportunity for the participants to learn more about the book supply chain, hear about the opportunities provided by the Global Digital Library (GDL), and discuss challenges and potential solutions to issues around the provision of ERMs in Cambodia.

In addition to the formal discussions, the event was the first time that many of the attendees had met each other, which brought about many informal conversations.

Following an introduction of the GBA by the Global Book Alliance in Action (GBAIA) Chief of Party Simon James, GBAIA consultant Roel de Haas introduced and presented on the book supply chain—its various aspects, challenges, and potential solutions. He outlined existing and emergent commercial opportunities for the printing and publishing industries and emphasized the need for dialogue between industry, government, and donors.

GBAIA's Tracy Cordner introduced the GDL, with a focus and discussion on the content being openly licensed under Creative Commons CC-BY,⁸¹ which allows publishers and printers to use the content for adaptation—including translation—and commercial printing. There was particular interest from two printers on the process of translating, altering, and using materials in the GDL. Overall, great interest was shown in translating and editing material on the GDL for Cambodia.

Although most participants spoke English, the meeting was conducted as far as possible in the Khmer language, with Khmer materials and real-time interpretation.

Following the presentations, a facilitated discussion took place that focused on each area of the supply chain in turn. The findings relating to the supply chain are described below.

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Supply Chain Discussion Findings

Planning and Forecasting

Printers and publishers alike contributed to the discussion about planning and forecasting, with the following identified as the main challenges:

- Publishers expressed concern about the small, competitive market in Cambodia.
- There was also concern that **families cannot afford books** for their children: however, affordable solutions were proposed, including credit lines for extended weekly payments to booksellers.
- Printers and publishers expressed a **lack of knowledge about the book** market, for example:
 - >> There are more than 100 education NGOs in Cambodia, but printers and publishers do not have a good understanding of how to interact with them. They are not aware of what the development partners are doing and what their future printing needs might be, so printers and publishers are not able to plan ahead or predict requirements.
- Participants learned that procurement doesn't have to come solely from the government—it can come from the NGOs and the implementing partners of the international donors in various sectors. Some attendees jokingly asked facilitators to send more NGOs to them to buy books.
- The lack of books in schools was discussed as was the lack of dedicated library staff in school libraries, with teachers volunteering to manage the library. Books in the school library are often under-used or unused, and they are often not suitable for the pupils. Publishers said they are working with the government to create new libraries, but specifics were not shared.

Publishing

The following were listed as the main challenges in publishing:

- The book market is small and supply, or ability to supply, outstrips demand.
- There are a range of publishers producing varying quality (and cost) of books—for example local publisher Sipar creates high-quality books.
- Smaller publishers must strategize to be profitable. One publisher's response was to bring out five new titles per year in an effort to ensure ongoing income.
- Publishers are creating new books with more illustrations and less text, despite parental concerns about value for money. Parents' perception is that fewer words on the page means less value.
- They expressed concern with the lack of a reading culture and the disruption of book culture by phone technology.
- Publishers find it difficult to adapt to new market opportunities and situations, particularly with the digital market.

- Pricing was brought up as a challenge—how can they work out how much should be charged for a book?
- Ocpyright issues: The lack of information on author, illustrator, and publisher of books as well as concerns about being sued were all discussed.
- One problem expressed by one of the attendees: each NGO has its own bidding and planning process but not all NGOs produce huge quantities of books. This makes it necessary to have individual systems and processes associated with each NGO, and it is tough to approach them together as a whole, which means that administrative investment can outstrip the potential payoff of printing for NGOs.
- The potential of the GDL was enthusiastically received by several printers as well as publishers.

Printing

Printers identified several specific challenges:

- Finding skilled staff to operate and repair printing machines is a challenge. Training programs do not exist in Cambodia and there is an over-reliance on foreign skilled workers for maintenance and installation of equipment.
- The lack of consistent electricity can be problematic.
- There is a shortage of skilled graphic designers and illustrators.
- Description High import duties and taxes on paper (7.7% import duty on materials and 10% import tax) are also barriers to creating books.
- **Delta Proof.**Heavy competition within Cambodia but also with China and other neighboring countries that can operate more cheaply due to lower taxation.
- Shortage of raw materials, including paper and ink, means delays in production.

Distribution

- Dooks are the most expensive for rural areas, but the ability to pay for books goes down the farther one gets from the city. Due to margin markups parents in remote areas, who can least afford it, are paying the highest unit costs for their children's books.
- Most of the books are produced in Phnom Penh where greater profits can be made.
- Some booksellers have been trying to sell online, acting as consolidators by collating orders which can then be shipped out.
- Retailers are marking books up by 25%-150%.

Book Use and Parental Attitudes

- Publishers expressed trouble with parental attitudes that children's books with a lot of illustrations are a "waste of money" and should have more writing. More words on the page are associated with better value for money and better learning according to parents.
- There is a culture among parents that books should not be given to very young children since they cannot read yet. There is a lack of awareness that reading to children helps develop children's reading capacity. Parents expect children to read on their own.
- Parents prefer older titles and cultural legends to newer or innovative titles.

Printer And Publisher Collaboration

An overarching issue was the lack of collaboration within the industry. This meeting may have been the first step in improving country-wide collaboration and organization:

- This was the first time that many of these professionals had met each other, and there was a general interest in improving collaboration.
- There was discussion that no networking bodies were coordinating, both within the industry and with donors and development partners, to collaborate around publishing books together.
 No networking bodies were found to be active enough to intervene and create relationships or address issues such as the tax on paper.
- Mr. Sok Rithy from the Printing and Distribution House (PDH) who is also chair of the **Cambodia Book Publishers Association made an appeal to the others to become part of the association**.

 By the end of the event, he reported interest from at least four new members. It appeared that the association was meeting a generally agreed-upon need. Mr. Rithy indicated that a meeting of the association may be scheduled for March or April 2020.

Next Steps

Publishing and Printing in Cambodia

- Attendees expressed appreciation for the meeting and for opportunities to network and collaborate.
- Providing links to the Cambodia Book Publishers Association might allow other individuals and companies to join the association and work together to find solutions to the challenges they face with respect to cost, paper imports, and the migration of the market toward digital and online platforms.
- Printers expressed interest in data and statistics to help them understand when and how many books might be printed.

- While it was not directly addressed at the meeting, getting books out to the provinces and remote areas is both necessary for the learners and readers in those areas and also an opportunity for the printing and publishing industry that is yet not fully realized.
- Presently, printers are responding to customer needs rather than seeking out business. They were encouraged to go to their potential customers (e.g., NGOs and implementing partners) to discuss needs and attract business.
- Nowever, training is needed for businesses to be able to properly write and reply to request for quotes (RFQs) if they are to be successful.
- There is also a great need for printing technician training. Inviting outside experts to conduct a weeklong training on operating and repairing printing machines would be appropriate.
- There is also a misunderstanding about publishing licenses, and Cambodian printers and publishers alike would benefit from training on Creative Commons licensing, or open licensing, and the opportunities it presents.

Future Printer and Publisher Meetings for GBAIA

The process of organizing and conducting the meeting provided information that will be useful for GBAIA as future such meetings are held in other countries. Administratively, it was discovered that the messaging app Telegram was preferred over email for correspondence, and that participants were more likely to attend the meeting if they had previously encountered GBAIA staff through the supply chain analysis earlier in the month.

Real-time interpretation between English and Khmer allowed for better communication and allowed participants to speak and share more comfortably than they could have in English. Still, great care must be taken in the wording of questions. For example, "What is your market?" was received by this audience as "What is a market?" rather than "Who are your customers?" Despite real-time interpretation, several people did not speak up, and so for future meetings, soliciting written input from everyone (e.g. "What is the greatest challenge you face in your profession?") would bring further insight to the discussion. It was thought that small group discussions, with printers and publishers in their own groups, would improve relevance to all. Upon reflection, facilitators thought they could have done a better job of encouraging networking, for example, by asking people to sit or talk with people they did not already know.

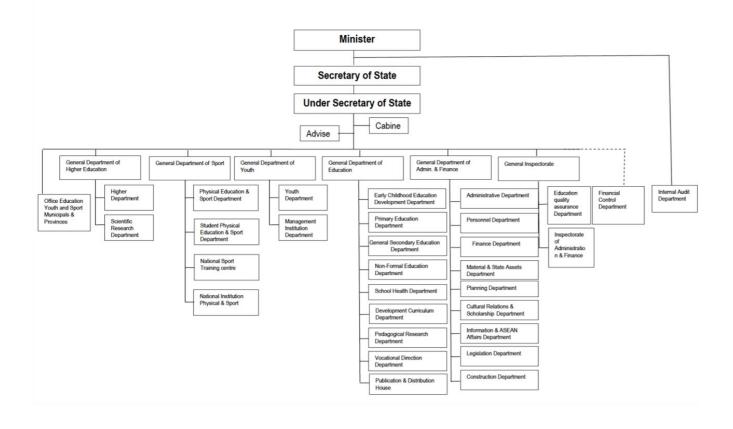
Conclusion

A meeting of this nature was greatly needed and appreciated in Cambodia. Printers and publishers learned more about their market, the opportunities to work with NGOs and implementing partners, and open-source offerings such as the GDL. The Cambodia Book Publishers Association was strengthened through the linkages made, and it is hoped that the association will continue to improve collaboration

among printers and publishers. It is believed that printers and publishers are ready and willing to collaborate, and that the industry has an opportunity to overcome challenges they all face, such as high import taxes, lack of skilled staff or training programs for printers, difficulty knowing and reaching customers, and challenges with parental attitudes and reading culture (or lack thereof).

GBAIA intends to conduct future meetings of this nature in other countries, and it hopes that similar energy, collaboration, and learning as at the Cambodia meeting will be seen.

ANNEX 6: ORGANIZATIONAL CHART OF MINISTRY OF EDUCATION, YOUTH AND SPORT



ANNEX 7: PROJECT BACKGROUND

The Global Book Alliance

The lack of access to quality and appropriate materials provides an insurmountable barrier to learning, resulting in over 600 million children and adolescents who are not learning the basics of reading and mathematics. In part, this is because 40% of young learners cannot access an education in a language they understand—either because materials are not available in their schools or communities or the books simply do not exist in their native language.

To help address the issues around this lack of materials, the Global Book Alliance (GBA) ⁸² was established in 2018 to provide research, support, and training to various stakeholders. A partnership of donor agencies, multilateral institutions, and civil society organizations, the GBA aims to bring together global education partners to end illiteracy through a coordinated effort to address the challenge of the growing book gap.

In order to support the GBA, the USAID Global Book Alliance in Action (GBAIA) project was created. This two-year initiative (2019–2021) works with the members of the GBA as well as with ministries of education, education partners, the private sector, and diverse other stakeholders to improve national book supply chains through identifying, promoting, and supporting innovations, best practices, and policies that will change the way books are created, procured, and provided.

As part of the research carried out under GBAIA, book supply chain analyses (SCAs) are being conducted in eight countries to identify country-specific strengths and challenges related to book provision and to enhance the global knowledge base around promising practices across the book supply chain.

An SCA is conducted by a team of international and national experts who meet with a range of stakeholders, including staff in ministries of education and other government agencies, suppliers of books to kindergarten and primary school children, NGOs, and other private sector actors such as transport companies. The SCA research consists of background data gathering and desk research followed by approximately two to three weeks of in-country meetings and subsequent follow-ups with recommendations and report writing. Research is then followed by activities that build stakeholder capacity to implement steps to improve book supply chain functions in the respective countries.

The first SCA was undertaken in Malawi and completed in December 2019; the second SCA was conducted in Cambodia in February 2020 as outlined in this report.

^{82 &}lt;u>https://globalbookalliance.org/</u>

ANNEX 8: BIBLIOGRAPHY

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