National SDG4 Midterm Review Thailand 2024



Ministry of Education, Thailand

Executive Summary

Rapid changes both within and outside the country are driving Thailand to quickly modernize its education system. Transforming education is necessary to enhance learners' skills, providing them with comprehensive knowledge and the ability to effectively handle changing situations. Rapid technological changes and the integration of technology into the teaching and learning process have led to new learning models, requiring both teachers and learners to adapt to evolving teaching methods. Additionally, the education system must create diverse learning opportunities to reduce social inequalities, and teachers need continuous professional development to effectively teach in new formats. Continuous teacher development is therefore a key factor in enabling Thailand's education system to compete globally.

1. Thailand's Education Management Towards Achieving the Education 2030 Agenda

Thailand's education management focuses on creating a comprehensive and high-quality education system, aiming for universal access to education for everyone, including those in remote areas or facing economic challenges. This involves enhancing education quality by prioritizing teacher training, updating curricula, and supporting lifelong learning aligned with labor market needs. Additionally, there is a focus on reducing educational inequality by addressing the needs of disadvantaged groups, such as individuals with disabilities and children from impoverished backgrounds. Effective management will be a crucial mechanism in driving educational success, requiring cooperation from all sectors, including private and community sectors, to foster opportunities and support sustainable educational development in the future.

Thailand is committed to achieving the Sustainable Development Goals in education through the implementation of several key strategic frameworks. These include the 20-Year National Strategy (2018-2027), which focuses on improving education quality and developing 21stcentury skills. The 13th National Economic and Social Development Plan (2023-2027) outlines educational reforms aimed at creating a high-quality, inclusive education system, reducing educational inequality, developing teachers and educational personnel, and integrating technology into learning in the digital age. Additionally, the National Education Plan (2017-2036) emphasizes promoting lifelong learning and reducing disparities to foster holistic development of students, ensuring both academic excellence and well-being

Furthermore, Thailand collaborates with ASEAN member countries and international organizations at both regional and global levels in the development of several educational declarations and joint statements to address issues related to access to education and promote lifelong learning. These commitments reflect a dedication to creating an education system that meets the needs of society and the economy sustainably, while preparing citizens to face future changes

2. Thailand's Educational Development Mechanisms

The Ministry of Education has established a systematic mechanism to achieve SDG 4 (Quality Education) by developing a comprehensive and step-by-step educational management plan. This includes setting goals and indicators that align with both national and global education management frameworks. Additionally, a national roadmap has been created to drive education towards achieving SDG 4, including providing guidance, establishing a systematic monitoring and evaluation framework, and continuously overseeing the performance of relevant agencies to ensure that educational development meets the set objectives and effectively addresses societal needs.

Additionally, the Thai government has implemented several policies and measures to advance educational goals in line with SDG 4. This includes providing 15 years of free education, covering the costs of basic education from kindergarten through primary school. Budget allocations support essential educational expenses such as teaching costs, textbooks, learning materials, school uniforms, and student development activities. These measures are designed to reduce the financial burden on families and increase opportunities for children from economically disadvantaged backgrounds to access quality education.

Educational management and human resource development in Thailand are a shared responsibility among several key agencies, including the Ministry of Education, the Ministry of Social Development and Human Security, the Ministry of Interior, the Ministry of Labor, the Ministry of Higher Education, Science, Research and Innovation, the Equal Education Fund, and others. These agencies play a crucial role in collaborating to drive and achieve Sustainable Development Goal 4 (SDG 4)

3. Reducing Educational Inequality

During the COVID-19 pandemic, the government took measures to increase per-student funding in various areas to support continuous education. This included a 20% increase in teaching costs, a 15% increase in learning materials, an additional set of uniforms for poor children, a 30% increase in student development activities, and adjustments in school lunch subsidies based on school size. These measures aimed to maintain high educational standards despite economic changes and emergency situations.

In 2024, the Ministry of Education announced the "**Thailand Zero Dropout**" policy, which aims to reduce the number of students dropping out of the education system to "**zero**." This policy focuses on integrating multi-dimensional data and creating a referral system to re-engage children and youth in flexible learning environments, with cooperation from the Ministry of Interior through the Provincial Education Committees, which include provincial governors and education officers

The "Anywhere Anytime" policy ensures that education is a human right provided at no cost, with a focus on employability upon completion. This policy emphasizes a learner-centered approach by developing diverse learning systems or platforms to enhance learning opportunities and reduce educational inequality. Additionally, it promotes private sector and industry involvement in supporting and managing education, helping students earn income while studying and securing employment after graduation (Learn to Earn). This includes continuous vocational education to develop technical skills in high-demand fields that match labor market needs.

4. Challenges in Educational Outcomes

Despite the Thai government allocating a substantial annual budget to the Ministry of Education, amounting to 10.2% of the total budget for fiscal year 2024, the quality of education in Thailand remains problematic when compared internationally. This is particularly evident from the IMD rankings, which place Thailand at 30th out of 64 countries, with the lowest ranking in education compared to other areas. This underscores the importance and urgency of improving educational quality to enhance global competitiveness.

Additionally, the educational performance of students as measured by national tests such as O-NET and international rankings like PISA remains low. Many children cannot access quality educational opportunities due to various constraints, as reflected by the disparity in resources

between large schools, which receive more funding and facilities, and smaller schools in remote areas that are resource-poor

In higher education, Thailand continues to produce graduates whose skills and competencies do not align with the needs of employers, significantly impacting national development and competitiveness. This issue is evident from the rankings provided by international educational assessment agencies.

5. Implementation and Progress in Achieving Education Targets

The Thai government has been actively supporting various initiatives to ensure education serves as a tool for enhancing opportunities and developing the skills of all citizens sustainably. The progress towards the targets under Goal 4 is as follows

Goal 4.1 Ensure that all girls and boys complete free, equitable, and quality primary and secondary education leading to relevant and effective learning outcomes by 2030.

Thailand has adopted the National Strategy 20-Year Plan and the 13th National Economic and Social Development Plan, along with the Education Act and the National Education Plan, to guide education management in alignment with current and future global changes. These initiatives aim to improve teaching and learning processes and modernize curricula to meet the needs of all students, focusing on enhancing teaching quality for effective learning outcomes.

The situation regarding access to education and graduation rates in Thailand shows continuous improvement towards Goal 4.1. The proportion of children enrolled in early childhood education increased from 84.7% in 2016 to 86.3% in 2019. Similarly, the graduation rates for primary and lower secondary education significantly rose from 91.8% and 90.1% in 2016 to 98.2% and 96.9% in 2019, respectively.

However, the graduation rate for upper secondary education showed a slight decrease from 81.7% in 2016 to 78.6% in 2019. Gender parity in educational access has steadily improved, with the Gender Parity Index (GPI) increasing across all education levels from 2016 to 2019, reflecting progress in achieving gender equity in the Thai education system.

The Ministry of Education has implemented several key projects to create educational opportunities, particularly the **"Bring Students Back to School"** initiative, launched in 2020 to address dropout issues and assist students who have left or are at risk of leaving the education system. This project focuses on locating and tracking these students to reintegrate them into the education system.

Additionally, the Ministry of Education has fully committed to enhancing educational quality through the **"Hold Hands and Move Forward Together**" approach, which centers on students with the concept of **"Happy Learning"** This approach aims to reduce educational disparities and continuously improve education quality by updating curricula and learning processes to match global changes. The curriculum is designed to cater to students' interests and needs, supporting income generation during studies and employment after graduation, aligning with labor market demands.

The Ministry of Education has also established a continuous educational guidance system from early childhood to secondary education, helping students identify their learning paths and life goals while being flexible throughout their educational journey. Moreover, the National Institute of Educational Testing Service (Public Organization) plays a crucial role in evaluating educational outcomes and conducting tests according to national and international standards.

Goal 4.2 Ensure that all girls and boys have access to quality early childhood development, care, and pre-primary education so that they are ready for primary education by 2030.

Thailand has made significant progress in managing and developing early childhood education, especially since 2008. The focus of early childhood education has been on promoting collaboration between parents and communities in child development, emphasizing several key areas including the promotion of good health, appropriate discipline, and overall development in physical, mental, and emotional aspects. In addition, there has been a focus on developing systematic analytical thinking skills and enactive practices that align with brain learning processes, as well as creating environments in educational institutions that reflect positive behaviors and lifestyles. These advancements have resulted from strong cooperation among various agencies, both public and private, which have worked together to develop comprehensive and systematic policies and strategies. One notable advancement is the establishment of national standards for early childhood development centers, which clearly define operational standards and quality to ensure adherence to the set standards.

Furthermore, a plan for early childhood development (2021-2027) has been established, which sets policies and strategies that align the work of all relevant ministries and agencies to reduce duplication and create consistency in operations. These policies aim to respond to the constitution and sustainable development guidelines.

Early childhood development is also supported by the creation of a central database for early childhood, which helps in tracking and evaluating the performance of early childhood development centers efficiently. The central database allows for the collection of important information about child development and the operations of educational institutions, as well as the evaluation of performance to continuously improve and develop the quality of pre-primary education management

Goal 4.3: Ensure that all men and women have access to quality education, vocational training, higher education, and universities at an affordable price by 2030.

Thailand has made significant progress in ensuring access to quality education at all levels, particularly in vocational and higher education, to meet the needs of the labor market and the modern workplace, through the development of comprehensive policies and measures.

At the vocational education level, the focus is on practical training, aligning with the use of technology and innovation applied to real-life situations. The emphasis is on developing specific academic and professional skills, including intensive hands-on experience tailored to individual aptitudes and interests. However, there is still a mismatch between the education system and the labor market in Thailand. Currently, Thailand produces a high number of bachelor's degree graduates, but the labor market requires more graduates from vocational fields, resulting in an incomplete response to market demands.

To address this issue, Thailand has developed a Competency-Based Curriculum, which includes intensive skills training alongside internships in businesses. This aims to better prepare graduates for employment. Additionally, there is a focus on enhancing teacher capabilities by updating knowledge and skills to match technological changes in various professions and improving the readiness of educational institutions with modern training tools and equipment.

In 2024, the Ministry of Education has important agendas, such as promoting vocational learning everywhere, anytime through the development of platforms and learning media, expanding access to vocational education, developing professional skills (up-skill, re-skill),

developing systems for professional standards and certification, creating specific vocational certificate programs, and promoting active learning, as well as supporting innovation and invention development.

At the higher education level, the Ministry of Higher Education, Science, Research, and Innovation continuously develops and drives higher education, focusing on producing and developing human resources that align with the country's needs. Cultivating appropriate skills for students is a key goal of the Ministry to create high-potential entrepreneurs who can effectively address global challenges. Furthermore, the Ministry emphasizes developing skills that meet labor market demands to ensure Thai higher education can compete globally.

To achieve these goals, the Ministry has launched several significant projects. The New Generation Graduate project aims to produce highly competent graduates for the New Growth Engine industries based on the Thailand 4.0 concept, blending academic and professional knowledge with practical work opportunities. The Cooperative Education and Work-Integrated Education (CWIE) project promotes curriculum integration with real-world work in collaboration with businesses. The National Credit Bank project supports lifelong learning by allowing the transfer of knowledge and experience to increase flexibility in accessing education.

The Ministry has also undertaken the Reinventing Universities project, focusing on reforming higher education by designating strategic institutions based on their capabilities and potential. Additionally, the Thailand Cyber University (TCU) project has created an online educational platform, Thai MOOCs, to disseminate knowledge widely to the public.

All these efforts reflect Thailand's commitment to creating a vocational and higher education system that meets labor market demands and supports sustainable development according to the SDGs framework.

Goal 4.4: Increase the number of youth and adults with relevant skills, including technical and vocational skills for employment, decent work, and entrepreneurship by 2030

Thailand has prioritized the continuous development of skills and education to adapt to changes in the labor market and to create sustainable economic opportunities. Supporting the enhancement of technical and vocational skills for youth and adults is a key strategy for developing human resources. At the same time, promoting successful entrepreneurship is crucial for job creation and economic stability.

Thai education policies emphasize investment in technical and vocational skills to prepare youth and adults for a rapidly changing labor market. The government and private sector collaborate to establish training programs and curricula focused on developing specialized skills in areas such as information technology, manufacturing, and services, which address diverse market needs. Additionally, support for entrepreneurs includes training and consulting on business management, innovation, and marketing to help entrepreneurs build successful and competitive businesses.

Moreover, Thailand provides **coaching and career guidance systems**, developing and updating curricula and learning processes to keep pace with global changes. The aim is to equip learners at all educational levels with skills essential for life and to align curricula with learners' interests and market needs, offering income opportunities during study and post-graduation employment.

The country has implemented guidance systems from early childhood through secondary education to help students discover their educational paths and career goals. There are also

systems for skill certification (Skill Certificate), allowing learners to earn qualifications for employment by accumulating credits that can be used to match educational qualifications. The system includes credit transfer or recognition from different educational institutions or international systems to facilitate access to education and recognition of qualifications. Thailand has created the National Credit Bank to support lifelong learning, providing flexibility in accessing education and allowing individuals to accumulate credits from knowledge and experiences throughout their lives.

The development of technical competencies focuses on producing and developing skilled workers in urgent fields aligned with national economic and social development plans. This approach emphasizes practical learning to develop vocational and life skills, ensuring that vocational graduates are ready to meet the country's labor needs and contribute positively to society.

Also, Thailand has established a National Qualifications Framework to connect education with the workforce, developing a framework that prepares graduates and workers for a competitive labor market. Integration of educational curricula with labor market standards and needs prepares graduates for challenging work environments. Participation in the ASEAN Qualifications Reference Framework is another significant achievement, helping Thailand compare and align its qualifications framework with those of other ASEAN member countries, promoting international mobility and opportunities in the ASEAN region.

The development of skills and education in Thailand not only addresses current labor market demands but also prepares for a rapidly changing future. With support from both government and private sectors, skill and education development are vital mechanisms for enhancing global competitiveness and driving sustainable economic growth.

Goal 4.5: Eliminate gender disparities in education and ensure equal access to education and vocational training at all levels for vulnerable groups, including persons with disabilities, indigenous people, and children, by 2030.

Thailand has been committed to achieving gender equality and ensuring access to education for vulnerable groups through the continuous development of policies and legislation aimed at promoting equal educational opportunities for all children. This effort includes several key areas that impact the enhancement of opportunities and reduction of disparities in the education system.

The enactment of the National Education Act and the establishment of education policies for persons with disabilities represent significant steps toward supporting equal access to education. The National Education Act has established important principles for providing comprehensive education to everyone, including a focus on education for persons with disabilities by ensuring their right to education and providing suitable learning environments.

In addition, there has been development in educational policies for ethnic and indigenous groups to increase access to education for children from these communities. The focus is on providing education that respects the cultural and linguistic diversity of indigenous peoples by training teachers with the knowledge and skills to teach and support vulnerable groups, as well as the ability to communicate with children from indigenous and ethnic backgrounds. Having teachers trained in this manner allows for effective and responsive teaching that meets the specific needs of each student.

The integration of technology into education is a key strategy for reducing barriers to access. The use of online learning materials and educational applications designed for learning helps children living in remote areas access educational content conveniently without having to travel to main educational institutions. Providing scholarships to children from vulnerable groups plays a crucial role in reducing inequality. This financial support helps children from poor families continue their education without worrying about educational expenses.

Results from educational initiatives show tangible progress. Data from the National Statistical Office in 2022 indicated that the enrollment rate for girls in primary education was 98%, while for boys it was 96%, reflecting a reduction in gender gaps in educational access. Additionally, a report from the Office of the Basic Education Commission showed that in the same year, 80,000 children with disabilities received education in mainstream schools, demonstrating advancements in educational readiness for special needs groups.

Providing scholarships to over 50,000 children from impoverished families also supports their continued education. Such support not only increases educational opportunities but also promotes the equitable development of every child's potential.

Goal 4.6: Ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy by 2030

In Thailand, developing literacy and numeracy skills is a key objective of educational reform. The aim is to ensure that all individuals, whether youth or adults, have access to quality education and develop the essential basic skills necessary for daily life and effective work.

The development of literacy and numeracy skills in Thailand begins at the basic education level, particularly in primary grades 1-3, which are crucial years for establishing a solid learning foundation. The Ministry of Education has established a basic education curriculum that intensively focuses on teaching these fundamental skills to maximize teaching effectiveness and fully meet students' needs. This curriculum is designed not only to build foundational understanding but also to foster critical thinking and analytical skills, which are important for students' overall development.

The community learning centers of the Department of Promoting Learning play a crucial role in enhancing literacy and numeracy skills for people at various levels, especially in areas with special needs or remote locations. These centers offer a range of learning activities, such as literacy training for adults and the establishment of classrooms for children, which significantly contribute to bridging educational gaps and increasing learning opportunities.

The literacy rate in Thailand reflects satisfactory success in human resource development. In 2021, the literacy rate for adults (aged 15 and above) reached 94.1%, an increase from 93.77% in 2020. This data highlights progress in educational development and the improvement of citizens' quality of life.

The rise in the literacy rate results from effective collaboration between the public and private sectors in promoting education, including investment in education with a serious focus on developing basic skills. Support for lifelong learning and the creation of educational opportunities for all citizens enable people to access education and develop the necessary skills for work and daily life comprehensively.

Goal 4.7: Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including education for sustainable development, sustainable lifestyles, human rights, gender equality, a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and how culture contributes to sustainable development by 2030.

The Ministry of Education has focused on providing knowledge and skills related to sustainable development through a curriculum that covers several important dimensions, such as sustainable development, human rights, gender equality, and a culture of peace. The basic education curriculum is designed to enhance awareness in these areas to create responsible citizens who understand crucial social and environmental issues.

The curriculum has been updated to integrate content related to sustainable development, such as global citizenship education and gender equality. These new curricula are aligned with the Sustainable Development Goals, particularly Goal 4.7, which aims to ensure that education and development activities produce quality, responsible citizens who can thrive in a global society.

Additionally, teaching and learning management emphasizes creating environments that support eco-friendly learning, such as green education, and utilizing technology for diverse educational methods, including online platforms and modern teaching materials. Support from both public and private sectors in creating learning environments that align with sustainable development goals helps make education more accessible and effective. This reflects a commitment to preparing individuals at all levels of education and work to live peacefully in society, be good citizens at both national and global levels, and promote sustainable economic growth and comprehensive development.

Goal 4.a: Build and upgrade educational facilities, as well as educational tools and equipment, that are sensitive to children, disabilities, and gender, and provide a safe, violence-free, inclusive, and effective learning environment.

The Ministry of Education has established policies and regulations aimed at ensuring the quality of educational equipment and tools at the basic level to make the management of educational resources effective and equitable. These policies include the development of teachers in the use of Information and Communication Technology (ICT) to modernize and tailor the teaching and learning processes to meet the needs of learners. Additionally, the Ministry of Education has set up a safety center to ensure that teaching and learning management is safe, by implementing measures to prevent violence, accidents, rights violations, and impacts on physical and mental health. All these efforts are directed towards creating a safe learning environment that supports sustainable educational quality development.

Goal 4.b: Increase the number of scholarships worldwide for students from developing countries, particularly least developed countries, small island developing states, and countries in Africa, to pursue higher education, including vocational training and programs in Information and Communication Technology (ICT), technical fields, engineering, and science in developed and other developing countries by 2030.

Thailand has promoted cooperation with both domestic and international partners to create learning opportunities for neighboring and developing countries through the allocation of scholarships and training, as well as educational exchange programs. This cooperation is carried out in collaboration with international organizations such as UNESCO, UNICEF, the World Bank, and SEMEO, among others. These partnerships include various forms of support, such

as scholarships for undergraduate, master's, and doctoral degrees, focusing on developing the capabilities and skills of personnel from different countries through high-quality education and training. This approach aims to enhance human resource development and sustainable growth in the region.

Goal 4.c: Increase the number of qualified teachers, including through international cooperation in teacher training in developing countries, particularly least developed countries and small island developing states, by 2030

The Secretariat Office of the Teachers' Council of Thailand has taken action through the Teacher Development Institute to develop individuals who are exempt from holding a teaching license to meet the professional knowledge standards required for obtaining a teaching license. This includes creating training curricula for professional teacher knowledge for both Thai and international educators. Additionally, in 2019, the office developed teacher professional standards to align with changes and national education directions. The Office of the Teacher Civil Service Commission has also developed training programs for teachers and educational personnel using Active Learning processes to promote effective and modern learning and development.

5. The Impact of COVID-19 on the Education System in Thailand

The COVID-19 pandemic has affected both the quantity and quality of education, particularly impacting students from low-income backgrounds and those living in remote areas. This situation has led to a significant number of children dropping out of the education system or facing the risk of dropping out to help alleviate their families' burdens.

The pandemic has profoundly impacted the teaching and learning system in Thailand. The situation has prompted educational institutions to adjust their teaching approaches to fit the emergency conditions, with significant effects on students, parents, and the overall education system.

5.1 Adjusting Teaching and Learning Approaches

During the COVID-19 pandemic, educational institutions worldwide, including in Thailand, faced unprecedented challenges. They had to rapidly transition to remote learning as the primary mode of instruction. Online education became a necessary alternative to in-person classroom learning. Although this method allowed education to continue during abnormal circumstances, it was found to be less effective than traditional classroom learning. Long-term remote learning has exposed several issues, such as stress, anxiety, and learning loss, which have had a noticeable impact on students.

However, the COVID-19 pandemic has acted as a significant catalyst for educational institutions and businesses to invest more in digital technology. This has led to the development of more flexible systems capable of better responding to the situation. Advancements in teaching tools and technology, such as Hybrid Learning, online teaching activity design, and teacher skill development, have become crucial improvements for modern education. These advancements aim to create an effective learning environment that can better handle future situations. Additionally, inter-agency integration has fostered collaborative efforts in holistic education management, promoting sustainable human development and stable economic growth in the long term.

6. Future Directions of Thailand's Educational Development

The development of education in Thailand is a crucial factor in preparing the youth for both the present and future. It focuses on creating high-quality and equitable educational opportunities throughout life and developing skills that meet international standards to adapt to changes in the 21st century. The main directions for educational development are as follows:

6.1 Promoting Access to Quality Education

Thailand's educational management approach continues to emphasize creating high-quality educational opportunities for everyone and promoting lifelong learning, aligning with Goal 4 of the education targets. These include:

- **Conditional Cash Transfer (CCT) Program**: This program provides financial assistance tailored to individual student needs in different contexts to alleviate educational expenses and barriers beyond just tuition fees. This initiative helps reduce disparities at the source and prevents Thai children from dropping out of the education system.
- Education Sandbox Initiative: Thailand has implemented education sandbox policies to test educational innovations. This allows schools to operate with greater autonomy and tailor education to the context and needs of the community, supported by central agencies. This approach aims to enhance educational quality, reduce educational disparities, and provide context-specific educational management to better align with local needs and conditions.
- **Community-Based Learning Opportunities**: This initiative focuses on developing models and social processes to create ecosystems conducive to learning for disadvantaged youth and informal sector workers with limited resources. It involves collaboration with local networks, including government, local authorities, civil society, academia, and the private sector, to support learning, research, and innovation. The goal is to develop flexible educational practices and diverse options for out-of-school youth and informal sector workers, empowering them to be significant contributors to future national development.

6.2 Development of Essential Skills According to International Standards

Thailand aims to transform its education system to prepare youth for an era characterized rapid changes. This involves developing curricula and learning methods that align with international standards as follows:

- **6.2.1 Curriculum Development:** The curriculum focuses on developing competencies and skills necessary for students in a changing global environment. It includes the use of continuous assessment processes (Formative Assessment) that aid in student development and improve learning according to student needs.
- **6.2.2 Learning Methods:** Promoting learning methods such as Active Learning, Project-Based Learning, Problem-Based Learning, and STEM Education will help students develop analytical and practical skills essential for effective problem-solving in everyday life.
- **6.2.3 Development of Reading and Analytical Skills:** Encouraging youth to love reading and develop analytical skills through reading will open up learning opportunities and enhance their ability to think critically. This also helps them understand diverse perspectives, develop creativity, and improve communication and systematic problem-solving skills. Reading not only enhances knowledge but also prepares the mind for lifelong learning and adaptation in a rapidly changing world.

- **6.2.4 Teacher Development:** Attracting knowledgeable and skilled individuals into the teaching profession and developing teachers to specialize in their subjects will stimulate students' systematic analytical skills. Reducing non-teaching workloads, such as accounting and administrative tasks, will allow teachers to focus on delivering quality education. Continuous professional development and training will enable teachers to adopt new teaching techniques and modern skills. Teachers should be adept at using educational technology to create engaging learning experiences and meet the needs of students in the digital age. Familiarity with online learning management and digital tools will help teachers adapt quickly to societal and educational changes, ensuring students receive comprehensive education and are well-prepared for future challenges.
- **6.2.5 Foreign Language Learning:** Promoting the learning of foreign languages, especially English, which is a global language, plays a significant role in preparing students for new opportunities in education and employment. English is a crucial communication tool internationally and a key to accessing academic resources and information often published in English. Effective English learning will help students engage better in a global environment, enhance communication skills, and increase opportunities for international education and employment in competitive fields. This investment is crucial for preparing students for growth and success in a rapidly interconnected world.

7. Development of Ecosystems, Resources, and Integrated Database Systems

Developing learning ecosystems and processes that align with local contexts and community needs promotes sustainable national development. Decentralization of education and localized management play significant roles in preparing students for a complex and rapidly changing world. Such educational management not only enhances knowledge and necessary skills but also helps students understand broader global dimensions. Developing problem-solving skills and effective community planning are key factors in creating a sustainable and environmentally friendly society.

To enhance the effectiveness of educational development and better meet local needs, it is essential to strengthen provincial roles in policy-making and budget allocation. Empowering provinces and regional groups to manage educational budgets appropriately will ensure investments are tailored to local needs and can address issues promptly. Improving expenditure regulations will help schools in remote areas access necessary resources and budgets, reducing educational inequities.

Furthermore, developing accurate and comprehensive educational data systems will aid in effective educational analysis and decision-making. A robust data system provides essential information for precise planning and decisions. Upgrading information technology infrastructure, such as enhancing internet connectivity and providing adequate computer equipment, will maximize learning management efficiency. This supports digital-age teaching and allows students to access necessary learning resources effectively.

8. Education in the Digital Age

Education in the digital age must rapidly adapt to changes. Educational reform should focus on utilizing new technologies, such as AI, to analyze student behavior and needs, and develop curricula that emphasize information technology and digital tools. This prepares students for a fast-evolving job market.

Additionally, training students in analytical thinking, time management, and effective technology use is crucial. Teachers should be developed to effectively use technology in teaching. The government should support infrastructure, such as increasing access to high-speed internet and providing modern learning equipment. This includes developing applications and digital tools that enhance learning efficiency and address challenges related to educational equity and cybersecurity. These measures will ensure Thailand's education system meets the demands of the digital era effectively and sustainably.

9. Development of Education Management Systems

To improve the efficiency and global competitiveness of education management, clear roles and missions for educational agencies must be defined. Promoting collaboration between agencies, knowledge exchange, and resource mobilization are essential for enhancing overall educational management. Promoting governance by creating transparency and accountability in operations is crucial for effective national education management.

Decentralizing management to local authorities and schools is another important strategy, enabling education to respond better to local contexts and specific needs. This results in education that aligns with community demands and diverse contexts. Systematic and continuous monitoring and evaluation of implementation plans will help address problems and improve educational effectiveness.

Moreover, supporting and showcasing education innovation hubs can drive effective changes in the education system. These hubs can serve as testing grounds for new teaching and learning methods, leading to innovative educational approaches that meet the demands of the 21st century. Supporting education innovation hubs not only helps develop student skills and knowledge but also fosters creativity and experimentation that benefit both local and national education systems, aligning with Goal 4 of the United Nations Sustainable Development Goals to ensure quality education for all, promote lifelong learning opportunities, and support sustainable development.

> Office of the Permanent Secretary Ministry of Education, Thailand

Table of Contents

	Page
Executive Summary	1
Table of Contents	13
List of Tables	14
List of Figures	15
Chapter	
1 Economic and Social Context of Thailand	16
2 Thailand's Actions Towards Advancing the Sustainable	
Development Goals	24
3 Progress in Achieving Sustainable Development Goal 4	33
4 The Impact of COVID-19 on Progress towards SDG 4	71
5 Review of the National SDG 4 Framework/Strategies	
and Expected Implementation Guidelines	77

List of Tables

Table 1: The Linkage Between the Sustainable Development Goals (SDGs)
and the Sub-goals of the Master Plan Under the National Strategy 26
Table 2: Number of Students Receiving Financial Support (Educational Level) 34
Table 3: Number of Students Receiving Financial Support (School Type)
Table 4: Indicators of Success for the Ministry of Higher Education, Science,
Research and Innovation's Policies and Strategies by 2027
Table 5: Definition of Sub-Target Indicators for SDG 4 in Thailand
Table 6: Thailand's Overall and Education Competitiveness Rankings for 2023
in the IMD World Competitiveness Yearbook 46
Table 7: Thailand's Improved Education Indicators Rankings for 2023(8 Indicators)
Table 8: Thailand's Declined Education Indicators Rankings for 2023
(10 Indicators)
in 2023 (1 Indicator)
Table 11: PISA 2022 Test Results for Thailand by School Type
Table 12: Projects and Activities Towards Achieving Goal 4.7 by Year

List of Figures

Figure 1: Average PISA Scores for Thailand, 2000 – 2022	50
Figure 2: PISA 2022 Test Results for Thailand by School Affiliation	51

Page

Chapter 1 Economic and Social Context of Thailand

1. Economic and Social Challenges

Thailand is located in Southeast Asia and has a population of over 70 million people, covering an area of more than 513,115 square kilometers (198,115 square miles). It is a country with an ancient culture, a long history, abundant natural resources, and a rapidly growing economy. In recent times, Thailand has faced significant internal and external changes within a complex and rapidly evolving context. The volatile and unpredictable global situation has profoundly impacted social activities and lifestyles across multiple dimensions. Globalization and new environmental conditions have influenced human lifestyles in economics, society, culture, politics, and governance. Moreover, advances in science and technology, which connect the world in a borderless manner, have intensified competition in various fields, including economics, social spheres, science, technology, and communication.

Thailand is also grappling with the full impact of transitioning into an aging society, which significantly influences the country's development trajectory in both economic and social dimensions. This demographic shift is accelerating the need for rapid national development to achieve objectives more efficiently, requiring the optimal management of limited resources to maximize their effectiveness.

1.1 Economic Factors

Thailand has a mixed economy that includes agriculture, industry, commerce, tourism, and services, with the majority of the population engaged in these sectors. Notably, sectors that have shown significant growth in Thailand include tourism, the automotive industry, and food production. These sectors benefit from advanced and well-developed transportation infrastructure, infrastructure, and communication systems.

Development across various economic sectors in Thailand is further bolstered by the establishment of modern infrastructure, efficient transportation systems, and the adoption of advanced information and communication technology. These elements collectively enhance Thailand's ability to connect with global markets effectively.

1.1.1 Overview of the Thai Economy in the Past Decade

Over the past decade, Thailand's economy has experienced continuous growth and demonstrated resilience in managing global economic volatility. However, the country faced severe economic setbacks due to the COVID-19 pandemic, particularly impacting the tourism sector, which suffered dramatically from travel restrictions and lockdowns. Many businesses were forced to close, both temporarily and permanently, leading to widespread job losses and reduced income for many individuals. Increased poverty emerged as a significant consequence. The pandemic also accelerated the need for businesses to adapt by investing in digital technology to maintain operations and remain competitive in an increasingly dynamic market.

1.1.2 Response to the COVID-19 Crisis and Economic Recovery

In addressing the COVID-19 crisis, Thailand implemented various measures to control the spread of the virus and support effective economic recovery. Key measures included providing financial assistance to individuals and businesses, offering tax relief, and investing in infrastructure and economic development projects. These initiatives aimed to stimulate growth and create jobs, helping to revitalize the economy and mitigate the impacts of the pandemic.

Economic recovery in Thailand is an ongoing process focused on improving the healthcare system to achieve stability and sustainable growth in the future. Additionally, investments in technology and innovation play a crucial role in stimulating the economy and promoting long-term sustainable development. The integration of digital technology and innovation is essential for driving economic recovery and advancing the country's progress securely into the future.

1.1.3 Impact of the COVID-19 Pandemic on Education

The COVID-19 pandemic has had a profound impact on the education system in Thailand, particularly by transforming teaching methods and disrupting traditional educational practices. The situation necessitated a rapid adaptation to online and distance learning, presenting significant challenges in ensuring equitable access to education and services. Thailand needs to enhance the skills of its workforce to align with the rapidly changing labor market demands, focusing on upskilling and reskilling. This response is crucial to meeting the increasing educational and training needs arising from the pandemic.

Additionally, the pandemic has accelerated changes in Thailand's educational policies to align with the BCG (Bio-Circular-Green Economy) strategy, which focuses on holistic economic development encompassing bioeconomy, circular economy, and green economy. Adapting education to this framework is crucial for developing a workforce with essential skills, such as digital literacy, data management, artificial intelligence, and coding. It is also important to emphasize skills that technology cannot easily replace, such as critical thinking, teamwork, and creativity. These changes aim to prepare the Thai workforce to effectively navigate future challenges and meet the evolving demands of the labor market.

1.2 Social Factors

Thailand is facing significant changes at both the national and global levels, which impact opportunities and risks for national development, particularly in social, religious, and cultural aspects. These factors profoundly affect the management of the country's education system. Changes such as social diversity, evolving values and lifestyles, and adaptations to shifts in religion and culture all influence the design and operation of the educational system to effectively address emerging needs and challenges. The impacts include:

- 1. Social Diversity: The increase in ethnic and religious groups requires the education system to adapt in order to accommodate and address the diverse needs of students and communities. Developing curricula and teaching methods that align with this diversity is crucial to ensure that education is inclusive and responsive to varying backgrounds and perspectives.
- 2. Changes in Values and Lifestyles: The continuous evolution of values and lifestyles among the population includes increasing expectations from parents and students regarding education. This encompasses the need for developing new skills and addressing the diverse demands of the labor market. These changes necessitate updates to educational curricula and teaching strategies to remain current and relevant.
- 3. Adaptation to Religious and Cultural Contexts: Religion and culture impact educational management, requiring consideration of religious and cultural diversity in the classroom. It is crucial to design education that respects differing beliefs and values to foster an inclusive and supportive learning environment.
- 4. Impact of Demographic Changes: The rise in the aging population and changes in household structures affect educational planning and social support systems. With an

increasing elderly population, there is a need to focus on education that emphasizes skill development and lifelong learning, enabling individuals to effectively adapt to changes in the labor market.

5. Promoting Social Equality: Fostering equality in education and social development is essential for creating equal opportunities for everyone. Providing equitable access to education and resources can help reduce social disparities and enhance fairness.

Preparing individuals to handle rapid and ongoing changes involves updating educational curricula, developing necessary skills, and systematically addressing social issues. This approach ensures that people are well-equipped to face new challenges and opportunities effectively. Understanding and managing these social factors will help the education system and development policies respond effectively to new needs and challenges.

1.2.1 Social Inequality

Thailand has continuously implemented policies to address poverty and social inequality, particularly within the framework of national strategies aimed at creating economic and social opportunities and equality. These efforts include increasing the income of vulnerable populations to help low-income individuals escape poverty, as well as developing a comprehensive social protection system. Policies encompass improvements in the education system, public health development, and state welfare programs, with the goal of reducing disparities and enhancing fairness in society. These measures aim to ensure that all segments of the population have access to necessary resources and services, thereby improving their quality of life.

1.2.2 Demographic Dynamics

Population dynamics are closely linked to the social and economic conditions of a country, as daily activities and living conditions of people influence changes in infrastructure, social structures, and economic growth. For example, changes in population size, whether increases or decreases, can affect the demand for resources and services, as well as infrastructure planning and development. Meanwhile, shifts in population quality, such as average age, knowledge, and skills, significantly impact the ability to achieve economic and social development.

Therefore, monitoring and analyzing demographic dynamics are crucial for effective social and economic development planning and management. This process helps in creating policies that address both short-term and long-term needs, leading to sustainable development and improvements in the quality of life for the population.

Youth

Youth play a crucial role in shaping the future of Thailand. Developing young people into quality adults who can lead the country toward long-term economic progress is therefore of paramount importance. The Ministry of Education is committed to providing education that fosters youth into good citizens at both national and global levels. This includes various activities such as scouting and girl guiding, which focus on enhancing life skills and peaceful coexistence with others in society.

Camping activities offer hands-on learning experiences that help children and youth develop leadership and followership skills. These activities emphasize life skills such as self-care, helping others, and contributing to the community. Additionally, promoting virtues such as

dedication to good deeds, altruism, sacrifice, discipline, and moral integrity helps cultivate responsible and high-quality young individuals who are committed to societal betterment.

Elderly Population

Thailand is experiencing significant demographic changes, and by 2024, the country is expected to fully transition into an aging society. According to the Department of Local Administration, Ministry of Interior, in 2023, the number of elderly people aged 60 and over is approximately 13 million, accounting for about 1 in 5 of the total population of 66,057,967 people. The full transition to an aging society has significant implications for the labor market as the working-age population decreases. This necessitates reliance on several million migrant workers to support the country's economic growth. The Thai government is therefore promoting productivity enhancements to adapt to the aging society, including restructuring the labor market, education, developing the capabilities of the elderly, and increasing investments in technology to support the working capacity of older adults.

Ethnic Minorities

Thailand is a multicultural society composed of diverse indigenous tribes and ethnic groups, each with its own unique culture, beliefs, traditions, and languages passed down through generations. These groups possess distinct cultural and linguistic identities. Providing inclusive and appropriate education for these minorities is crucial for promoting equity and fostering social development. Ensuring that educational programs respect and incorporate the unique cultural and linguistic characteristics of these groups helps to build fairness and enhance societal progress.

1.2.3 Gender Equality

Thailand enacted the Gender Equality Act of 2015, which is a law aimed at protecting and safeguarding the rights of individuals who face discrimination based on gender. This law promotes gender equality between men and women and supports individuals with diverse gender identities. Additionally, Thailand has ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) 1979.

Thailand is the first country in ASEAN and the third in Asia to have legal provisions for the marriage of individuals with diverse gender identities (LGBTQ+) through the Same-Sex Marriage Act. This law allows for the establishment of family rights previously restricted to heterosexual marriages, enabling individuals of any gender to legally marry. Although Thailand has made significant progress in this area, achieving gender equality remains a critical goal. This includes enhancing women's participation across various sectors, increasing their representation in leadership roles, and reducing the gender pay gap.

1.2.4 Environmental Challenges

Thailand is endowed with valuable natural resources and a rich environment that are vital for sustainable economic development and improving the quality of life for its people. However, unsustainable use of these resources, both in production and consumption, has led to waste and pollution that exceed the environment's capacity. These issues have severe long-term impacts on economic and social development and present significant challenges to achieving sustainable development goals. The degradation of ecosystems and the deterioration of natural

resources highlight the urgent need for effective management and conservation strategies to address these pressing environmental concerns.

Climate Change

The climate change crisis is an escalating issue that requires urgent global cooperation for resolution. Failure to mitigate and adapt to climate change has led to various problems, including extreme weather events, loss of biodiversity, ecosystem collapse, and water crises. From 2005 to 2015, climate change caused damages amounting to \$1.4 trillion and impacted 1.7 billion people worldwide. UN Secretary-General António Guterres has stated that "July 2023 temperatures indicate that the world has transitioned from global warming to 'global boiling,'" reflecting the intensified severity of global warming. Addressing this crisis, as outlined in the Paris Agreement of 2015, is crucial. Countries worldwide must work together to achieve goals for reducing greenhouse gas emissions and adapting to climate change to safeguard natural resources and maintain global quality of life in the long term.

Environmental Pollution Issues in Thailand

Thailand faces significant pollution issues, including air pollution from PM2.5 dust and nitrogen dioxide emissions from vehicles and industries, water pollution from wastewater and chemicals from agriculture, soil pollution from chemical use and improper waste disposal, and plastic waste problems affecting marine ecosystems. Addressing these issues requires stringent enforcement of regulations, increased public awareness, and improvements in waste management and pollution reduction strategies.

Loss of Landscapes and Biodiversity

The loss of landscapes and biodiversity is a pressing issue in Thailand today. Deforestation, urban expansion, and agricultural growth have significantly reduced biodiversity. Educational institutions play a crucial role in conservation, research, and promoting sustainable land use to restore ecosystems and protect endangered species. Raising public awareness about the importance of conservation and addressing environmental issues is a priority for Thailand. This involves encouraging responsibility for environmental security, addressing natural disasters, and adapting to climate change. Conservation and restoration of natural resources and ecosystems are key strategies, with Thailand collaborating with other countries to effectively manage risks from natural threats.

2. Scientific and Technological Advancement

Over the past decade, advancements in science, technology, and innovation have rapidly transformed the educational landscape. Education has evolved from a traditional classroom-centric model to a Digital Education approach that integrates learner-centered teaching with technology. This shift aims to foster creativity, critical thinking, and essential 21st-century skills in students, preparing them to navigate inevitable changes.

The swift and continuous evolution of technology has impacted various sectors, including academics, communication, industry, and business. Significant changes include the replacement of human labor with automation, and the adoption of new technologies such as Cloud Computing and Artificial Intelligence across industries. These advancements have transformed production processes, services, and given rise to new industries. Emerging technologies have also created opportunities for new business ventures and increased market competition, including online businesses, digital marketing, and mobile app development.

3. Educational Rights

In Thailand, the right to education is a fundamental right enshrined in every constitution. The 2017 Constitution mandates that the state provide 12 years of education to all children, from pre-kindergarten through compulsory education, at no cost. This includes early childhood care and development to build age-appropriate skills, and encourages local organizations and the private sector to participate.

Thailand supports educational freedoms by allowing access to both public and private schools based on individual choice, the right to select educational institutions and fields of study, and the freedom to learn and express opinions. Educational institutions and relevant agencies are required to facilitate access to diverse information and learning resources to help students reach their full potential. The country promotes cultural diversity in the learning process by fostering an open environment that respects cultural differences, enhances understanding, and maintains a neutral and equitable educational setting. Emphasis is placed on independent thinking, knowledge seeking, creative learning, and appropriate skill development. Thus, education and human rights are closely linked, ensuring no one is left behind and serving as a key to achieving Sustainable Development Goals (SDGs), with a focus on truly putting people at the center.

4. Sustainable Development Goals

Sustainable Development Goal (SDG) 4 aims to ensure inclusive, equitable, and quality education, and promote lifelong learning opportunities for all by 2030. Preparing individuals of all ages for a sustainable learning society is crucial, focusing on the development of knowledge, skills, values, ethics, and social behavior, as well as combating corruption.

The Ministry of Education, as the principal agency responsible, has established mechanisms for implementation at both national and local levels. These mechanisms set guidelines and objectives, oversee, monitor, and report on progress, and address challenges according to the framework outlined by the committee driving SDGs in education.

The framework and operational goals will utilize the SDG4 Roadmap, which has been developed by the committee and working groups. This roadmap is a crucial tool that aligns and integrates various strategies to effectively guide and achieve the specified objectives for advancing sustainable development in education.

4.1 Linking Education with the United Nations Sustainable Development Goals

Education is not only a goal in itself (SDG 4) but also a vital tool for supporting and driving the achievement of other SDGs. Thailand emphasizes aligning education to achieve various SDGs, including:

- **SDG 5: Gender Equality** Promoting gender equality in education and labor is crucial. Policies supporting girls' education and women's participation in STEM fields (Science, Technology, Engineering, and Mathematics) are essential for achieving this goal.
- **SDG 8: Decent Work and Economic Growth** Aligning the education system with labor market needs and promoting skill development support SDG 8. Projects aimed at reducing youth unemployment and fostering entrepreneurship are vital for economic growth.

- **SDG 13: Climate Action** Educational programs and environmental awareness play a significant role in achieving SDG 13. Promoting sustainable practices and climate-related research within the education sector is crucial for addressing climate change.
- **SDG 15: Life on Land** Education on conservation and biodiversity research aligns with SDG 15. Educational institutions are key in promoting sustainable land use and protecting ecosystems.

Additionally, within the framework of the Sustainable Development Agenda 2022-2026, the Thai government and the United Nations have agreed to develop human capital and improve access to education for the population. This includes focusing on enhancing access, responsiveness, and the quality of public services to support the transformation of Thailand's education system. "Improving the quality of education and lifelong learning is essential for achieving the Sustainable Development Goals. Key areas of focus include advancing education for children at all levels, aligning skills development with labor market needs, expanding digital education platforms and e-learning resources, as well as improving infrastructure and digital equipment, teacher training, and digital citizenship skills development.

5. Directions and Trends in Education

The various contextual changes mentioned are key factors driving the education system to adapt to emerging changes. These factors have resulted in shifts in the direction and trends in education, as detailed below:

5.1 Application of Technology in Education Management: This involves incorporating new technologies into teaching processes, such as using AI and online education platforms to enhance equitable access to education for students nationwide. It also includes supporting blended learning approaches and using EdTech to create clear and effective instructional content.

5.2 Curriculum Adjustment and Learning Processes: Developing flexible curricula that align with future labor market needs, such as personalized learning approaches and acquiring essential 21st-century skills. This includes emphasizing critical thinking and problem-solving skills, as well as fostering creative and innovative thinking through learning.

5.3 Equity and Access to Education: Reducing educational disparities, especially among disadvantaged students and those in rural areas, through the use of technology and programs that support equitable access to education.

5.4 Development of Teachers and Educational Staff: Training teachers to effectively integrate technology into teaching and respond to the evolving needs of students. This also includes reducing non-teaching administrative burdens so that teachers can focus on delivering high-quality instruction.

5.5 Lifelong Learning: Promoting a culture of lifelong learning by extending the concept that education should not be confined to the classroom but should also include learning outside the classroom to prepare learners for future changes.

Conclusion

Thailand faces numerous challenges and opportunities within its economic and social contexts. The education sector has become a key mechanism for addressing these issues and plays a crucial role in promoting social, economic, and environmental development. It focuses on aligning with national priorities and Sustainable Development Goals (SDGs).

Reforming and developing education is essential for advancing towards a sustainable and inclusive future. The linkage between education and other sectors such as the economy, technology, and environmental conservation highlights the importance of a holistic approach. This approach ensures that progress in one area can support and enhance outcomes in other areas effectively. Continuous focus on education not only prepares individuals to face new challenges but also creates equal and quality opportunities for everyone, leading to sustainable national development and the achievement of both national and global goals.

Chapter 2 Thailand's Actions Towards Advancing the Sustainable Development Goals

1. Achieving Thailand's Sustainable Development Goals: Development Approaches and Integration with National Strategy

The Sustainable Development Goals (SDGs) established by the United Nations provide a global framework for development from 2015 to 2030. This framework encompasses various dimensions of development, including people, prosperity, the environment, peace, justice, and partnerships. It consists of 17 primary goals and 169 specific targets th1.at clearly define the scope of development, accompanied by indicators to systematically track progress and assess goal achievement. The SDGs aim to be inclusive, ensuring that no one is left behind. Thailand endorsed the SDGs in September 2015 and has incorporated sustainable development principles into its national strategy. This approach drives the country's efforts to achieve sustainable development and address various aspects of national progress.

The United Nations Sustainable Development Goals (SDGs) were developed as a continuation of the successes achieved through the Millennium Development Goals (MDGs). The MDGs raised global awareness about addressing critical issues such as poverty, communicable diseases, access to quality education for all, gender inequality, and environmental degradation. Thailand made significant progress towards the MDGs by applying the philosophy of sufficiency economy, which focuses on placing people at the center of development and enhancing the capabilities of individuals and communities.

With the conclusion of the Millennium Development Goals in 2015, the global community established a new framework known as the Sustainable Development Goals, which will guide development efforts until August 2030. This framework emphasizes progress across three core dimensions: economic, social, and environmental. Education plays a crucial role in achieving all 17 Sustainable Development Goals, highlighting its importance in reaching these global targets.

2. Linking the United Nations Sustainable Development Goals to Thailand's Development Thailand has endorsed the 2030 Agenda for Sustainable Development, recognizing that implementing the Sustainable Development Goals (SDGs) effectively requires a proper understanding of their principles and adapting them to fit the country's specific development needs and challenges, from the national level down to local communities. This approach is crucial for ensuring that the country's development is beneficial and sustainable.

The endorsement of the SDGs has inspired and driven Thailand's development across social, economic, and environmental dimensions, aligning with its national development goals and contributing to global sustainability efforts. Consequently, Thailand has elevated sustainable development to a national agenda, aligning it with the National Strategy 2018-2037.

The 17 SDGs closely align with Thailand's National Economic and Social Development Plans, reflecting a comprehensive approach that addresses various aspects such as human development, economic prosperity, environmental protection, peace, justice, and development partnerships. Integrating these goals helps Thailand implement its 20-year national strategy effectively, aiming for inclusive and sustainable development in the future.

3. Efforts and Collaboration to Achieve Goal 4: Quality Education

Providing quality education and lifelong learning opportunities, as outlined in Goal 4, is a crucial focus for the global community. Recognizing education as a fundamental tool for national development, access to education not only enhances economic growth but also helps bridge social gaps, promote equity, and reduce disparities across all dimensions. Education thus serves as a central link connecting various development goals and is key to building an equitable and sustainable society in the long term.

3.1 The Role of the Ministry of Education in Advancing SDG 4: Quality Education for Sustainable Development

The Ministry of Education plays a vital role in advancing Goal 4 of the Sustainable Development Goals, which focuses on providing inclusive and equitable quality education and promoting lifelong learning opportunities for all. The Ministry's efforts are directed towards building partnerships with stakeholders at both national and international levels to effectively achieve this goal. It has established close collaborations with international education organizations such as UNESCO, which plays a key role in setting standards and development guidelines; UNICEF, which supports education for children and youth; and SEAMEO, which focuses on educational development in Southeast Asia. Additionally, the Ministry works with international cooperation frameworks such as APEC and ASEAN, which serve as important platforms for sharing knowledge and best practices.

At the national level, the Ministry of Education promotes cooperation with various government agencies, non-governmental organizations, and the private sector to build a robust network for advancing comprehensive and effective education. This includes updating and modernizing educational policies to align with labor market needs and respond to advancements in technology and necessary skills. The Ministry also emphasizes increasing access to education in remote rural areas and creating educational opportunities for disadvantaged groups, such as marginalized communities, minorities, persons with disabilities, and ethnic groups. This comprehensive approach to education addresses societal needs and future changes, ensuring that everyone has the opportunity to access education and fully develop their potential, in alignment with national strategies and education plans.

3.1.1 The 20-Year National Strategy (2018-2037): Educational Development for a Sustainable Future

The 20-Year National Strategy (2018-2037) outlines a long-term framework aimed at ensuring sustainable growth and strengthening all dimensions of Thailand to genuinely enhance the quality of life for its people. The primary vision of this strategy is to create a peaceful and economically and socially stable society. Human resource development is therefore a key strategy to drive this vision towards success.

Within the framework of the 20-Year National Strategy, educational development is recognized as a critical factor in enhancing human resource capabilities across all dimensions: physical, mental, and intellectual. This approach aims to enable individuals to develop into quality citizens at every stage of life and to cultivate responsible and well-being-oriented Thai citizens.

Table 1: The Linkage Between the Sustainable Development Goals (SDGs) and the Subgoals of the Master Plan Under the National Strategy $^{\rm 1}$

Sub-targets (SDG Targets)	Linkage with the Sub-Targets of the National Strategy's Master Plan
4.1 Ensure that all boys and girls complete quality primary and secondary education that is equitable and free of charge, leading to positive learning outcomes.	120101 Thai people receive quality education according to standards, with learning skills and competencies essential for the 21st century, and have improved access to continuous lifelong learning.
4.2 Ensure that all boys and girls have access to quality early childhood development, care, and education to prepare them for primary education by the year 2573 BE (2030 CE).	110201 Children are born with high quality, develop appropriately, and have increased access to quality services.
4.3 Ensure that all men and women have access to quality education, vocational education, higher education, including universities, at an affordable cost by the year 2573 BE (2030 CE).	110301 Students and adolescents possess comprehensive 21st-century knowledge and skills, including critical thinking, analytical abilities, a love for learning, civic awareness, ethical courage, problem-solving skills, adaptability, and effective communication and collaboration abilities throughout their lives.
	120101 Thai people receive quality education according to standards, with learning skills and competencies essential for the 21st century, and have improved access to continuous lifelong learning.
4.4 Increase the number of youth and adults with relevant skills, including technical and vocational skills for employment, valuable work, and entrepreneurship by the year 2573 BE (2030 CE).	110301 Students and adolescents possess comprehensive 21st-century knowledge and skills, including critical thinking, analytical abilities, a love for learning, civic awareness, ethical courage, problem-solving skills, adaptability, and the ability to communicate and collaborate effectively with others throughout their lives.
	110401 Workers have the potential to increase productivity, possess high vocational skills, recognize the importance of self-development to reach their full potential, and are able to adapt and learn new

¹ SDG4 Roadmap Page 63

Sub-targets (SDG Targets)	Linkage with the Sub-Targets of the National Strategy's Master Plan	
	things in response to the dynamics of job structures and labor market demands.	
	110402 The number of skilled Thai individuals and foreign experts working in science, technology, and innovation within target industries has increased.	
	120101 Thai people receive quality education that meets standards, acquire 21st- century learning and essential skills, and have improved access to continuous lifelong learning.	

3.1.2 The 13th National Economic and Social Development Plan (2023-2027): Education Development for Sustainability and Equality

Since the inception of the National Economic and Social Development Plans, starting with Plan No. 1, Thailand has experienced progress across both economic and social dimensions. However, the potential and quality of the Thai population at all stages of life remain significant challenges for the country's development. Although access to public services, education, healthcare, infrastructure, and social protection has improved, issues with varying service quality between regions persist. These disparities contribute to ongoing inequalities across multiple dimensions, as each aspect of development is interconnected and mutually influential.

The 13th National Economic and Social Development Plan (2023-2027) continues to focus on enhancing a quality, inclusive, and equitable education system to respond to global changes and future societal needs. The framework of the 13th Plan emphasizes developing a highly skilled workforce by upgrading the quality of education and skill development systems to align with technological advancements and labor market changes. The focus of development is on acquiring essential skills for the modern world, such as foreign language proficiency, digital skills, and soft skills, to ensure learners can adapt and prepare for new job opportunities in the future. Additionally, the plan highlights the need to improve the education and training systems to match the potential of various student groups, including youth aged 15-24 who are not engaged in education, employment, or training (NEETs), and to enhance the role of higher education institutions in producing a "Hi-Value and Sustainable Thailand" by 2027 through effective human resource development and policies that support social and economic changes resulting from urban expansion and demographic shifts.

3.1.3 The National Education Plan 2017-2036

The National Education Plan 2017-2036 envisions "All Thais receiving high-quality education and lifelong learning, living happily, in alignment with the philosophy of sufficiency economy and the changes of the 21st century." Its four main objectives are to develop a high-quality and efficient education system and processes, to cultivate Thai citizens with characteristics, skills, and competencies in line with constitutional provisions and national strategies, to create a learning society and ethical environment for sustainable development based on the sufficiency economy philosophy, and to reduce domestic inequalities to help Thailand move beyond the middle-income trap.

The plan aligns with Sustainable Development Goals (SDGs) and domestic contexts such as improving education quality across all age groups, demographic changes, income distribution inequalities, and environmental crises. Key goals include ensuring universal access to quality education without fees, equitable educational support at the basic education level, enhancing educational quality to meet potential (e.g., improving O-NET and PISA scores), effective education management, and responding to global changes by improving educational competitiveness, increasing vocational education enrollment, and expanding globally ranked higher education institutions.

3.1.4 National Education Reform Plan (Revised Edition)

The National Education Reform Plan focuses on enhancing the quality of education to reduce inequalities and improve the efficiency of the education system to meet the challenges of the 21st century. Its primary goal is to provide high-quality education that meets standards, along with essential skills such as problem-solving, adaptability, communication, and collaboration. Additionally, it emphasizes fostering discipline, lifelong learning, and responsible citizenship while nurturing pride in Thai identity.

The reform plan covers various aspects, including creating opportunities and ensuring educational equity, reducing disparities, developing effective teaching methods, improving the quality of teachers and educational personnel, vocational education, and reforming higher education governance. It also includes implementing the National Education Act, building partnerships with stakeholders, decentralizing authority, piloting reform activities, managing educational data, and monitoring student achievement. This plan aligns with the Constitution of the Kingdom of Thailand and national human resource development strategies, and it aims to respond to technological changes and the evolving modern world.

4. Mechanisms for Driving Thailand's SDG 4 Education Goals

4.1 Management of Education within the Framework of the Sustainable Development Committee (SDC) and the Ministry of Education

Thailand has established the Sustainable Development Committee (SDC), chaired by the Prime Minister, with the Secretary-General of the National Economic and Social Development Council serving as the secretary. The primary mission of this committee is to set policies and strategies for the country's sustainable development, encompassing economic, social, and environmental dimensions in a balanced and integrated manner.

On September 14, 2020, the Sustainable Development Committee decided to assign the Ministry of Education as the responsible agency for coordinating Goal 4, which focuses on "ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all." To achieve these objectives, the Ministry of Education has undertaken the following action.

4.2 Appointment of the Committee for Advancing Sustainable Development Goals in Education

The Ministry of Education has established a committee to advance the Sustainable Development Goals (SDGs) in education. This committee is responsible for setting the framework, guidelines, and objectives for implementing SDG 4. It also reviews and approves the SDG 4 Roadmap,

oversees and monitors progress, and addresses any challenges encountered during implementation to ensure the overall success of the education-related SDG initiatives. The committee is chaired by the Permanent Secretary of the Ministry of Education, with the Minister of Education and the Deputy Minister of Education serving as advisors. The committee includes senior executives from the Ministry, experts, and representatives from relevant ministries and agencies as members.

The appointment of the Committee for Advancing Sustainable Development Goals in Education establishes an effective operational framework and a solid foundation for sustainable education development. It fosters strong collaboration and coordination among relevant agencies, ensuring that Thailand can achieve the Sustainable Development Goals in education effectively and sustainably.

4.3 Appointment of the Working Group for Developing the SDG Education Roadmap

The Working Group for Developing the SDG Education Roadmap is responsible for setting goals, indicators, and operational strategies. The roadmap was drafted for advancing the Sustainable Development Goals in education and submits it to the Committee for approval. Additionally, the Working Group defines the methods for monitoring and reporting on the progress of implementing the education-related SDG objectives.

4.4 Appointment of Regional and Provincial Task Forces for Driving Sustainable Development Goal 4 (SDG4) in Education

Regional and provincial task forces responsible for advancing the Sustainable Development Goal 4 (SDG4) in education play a crucial role in implementing the SDG4 Roadmap at the local level. Their primary responsibilities include coordinating and integrating efforts with relevant agencies to establish frameworks and strategies for achieving the overall educational sustainability goals. This involves driving specific sub-goals and developing databases for monitoring and evaluating progress.

Additionally, these task forces are tasked with collecting and analyzing data related to sub-goals to set success targets and develop tracking systems at the regional and provincial levels. Effective management, monitoring, and evaluation of these operations are essential for identifying and addressing challenges and obstacles, ensuring that Thailand's efforts to achieve sustainable development in education are both efficient and successful.

5. Development of the SDG4 Roadmap

The Sustainable Development Goals (SDGs) Committee has approved the SDG4 Roadmap created by the Ministry of Education. This Roadmap is designed to guide and implement efforts towards achieving the SDG4 targets in education by 2030. It emphasizes principles of inclusivity, comprehensiveness, integrated collaboration, and local development, and encourages community involvement in shaping development strategies and addressing local issues to ensure sustainable progress.

The SDG4 Roadmap aims to align education with the fourth SDG, which seeks to provide quality, inclusive, and equitable education and promote lifelong learning opportunities for all. The roadmap serves as a framework for clear and concrete implementation of SDG4, a tool for monitoring and evaluating progress, and a guide to ensure that the Ministry of Education's actions are in line with the policies and guidelines set by the Sustainable Development Committee. By doing so, it supports effective planning and execution of education initiatives in Thailand, ensuring alignment with global sustainability goals and fostering sustainable progress both nationally and locally.

6. International Collaboration to Achieve SDG4 in Education

Thailand has actively engaged in close cooperation with ASEAN member states and international organizations to achieve Goal 4 of the Sustainable Development Goals, which focuses on providing quality and inclusive education for all. This cooperation is realized through significant regional and global agreements and declarations. The collaborative efforts aim to address issues related to educational access and enhance the quality of education across the Southeast Asian region. By working together, these partnerships seek to overcome challenges and ensure that educational opportunities are equitable and of high quality for everyone.

6.1 ASEAN Declaration on Strengthening Education for Out-of-School Children and Youth

Thailand, in collaboration with ASEAN member countries, has developed the "ASEAN Declaration on Strengthening Education for Out-of-School Children and Youth (OOSCY)." This declaration aims to protect and support children and youth who are out of school, such as those from poor backgrounds, those with disabilities, and ethnic minorities who are often excluded from the education system.

The declaration focuses on several key areas: developing and implementing measures to improve access to education for marginalized groups, supporting education for those at high risk, promoting the exchange of information and resources among ASEAN member states, and establishing mechanisms for monitoring and evaluating the effectiveness of these measures. By adhering to this declaration, ASEAN countries seek to ensure that educational initiatives are effective and meet the needs of out-of-school children and youth, thereby enhancing educational opportunities and sustainable development across the region.

6.2 Bangkok Declaration on Advancing Partnership in Education for 2030 Agenda for Sustainable Development in ASEAN

Thailand has collaborated with ASEAN, UNESCO, UNICEF, and the SEAMEO Secretariat to develop the "Bangkok Declaration on Advancing Partnership in Education for 2030 Agenda for Sustainable Development in ASEAN." This declaration is pivotal for advancing education partnerships to achieve the Sustainable Development Goals (SDGs) by 2030. The Bangkok Declaration focuses on three main areas:

- 1. **Raising Awareness of the 2030 Agenda**: This involves enhancing knowledge and awareness about the goals and significance of the 2030 Agenda for Sustainable Development. It includes organizing activities and campaigns to help the public and educators understand the importance of these goals.
- 2. **Promoting Educational Management to Support SDG Achievement**: This encompasses the development of educational curricula and learning strategies aligned with the SDGs. It aims to create educational and training opportunities that meet the needs of the modern world, ensuring that education systems are equipped to support sustainable development goals effectively.
- 3. Strengthening Partnerships to Support Achievement of the 2030 Agenda: This involves building and promoting collaboration among government, private sector, and international organizations to advance educational development. It emphasizes coordinating and supporting projects that have a positive impact on sustainable development, ensuring that all stakeholders work together effectively to achieve the goals of the 2030 Agenda.

6.3 Bangkok Statement 2022: Pathways for Revitalizing and Transforming Education in the Asia-Pacific Region

Thailand hosted the Asia-Pacific Ministerial Education Conference from June 5-7, 2022, to exchange experiences, insights, and strategies for addressing the evolving global context and the recovery of education from the COVID-19 pandemic. The conference endorsed the "Bangkok Statement 2022," which aims to revitalize learning and transform education in the Asia-Pacific region to ensure quality and equitable education for all.

The Bangkok Statement emphasizes the need to recover learning and reopen schools to address the increased educational disparities and severe learning crises, particularly among vulnerable groups. Key strategies include opening schools and developing recovery plans to help students catch up on lost learning. For transforming education, the statement outlines several priorities: addressing exclusion and inequality, improving educational quality and relevance, developing skilled teachers, leveraging digital technology in education, planning, overseeing, and monitoring educational outcomes, and increasing investment in education to meet minimum standards and enhance inclusivity.

The implementation of the Bangkok Statement aims to make education systems more flexible and future-ready, addressing challenges and evolving needs effectively and sustainably in the Asia-Pacific region.

6.4 Buriram Joint Statement from the 13th ASEAN Education Ministers' Meeting

Thailand hosted the 13th ASEAN Education Ministers' Meeting in Buriram on August 25, 2023, under the theme "Transforming Education in the Digital Era." The conference focused on improving and developing education in the Southeast Asian region to support the United Nations' Sustainable Development Goals (SDGs), with an emphasis on increasing collaboration among ASEAN member countries to achieve sustainable development.

The Buriram Joint Statement outlined several key priorities, including the recovery of learning post-crisis, such as reopening schools and developing strategies to help learners catch up on lost education. Additionally, it addressed transforming the education system to be more flexible and future-ready, which includes managing educational inequalities, improving teacher quality, updating curricula to meet new demands, and promoting digital technology in education.

The statement also emphasizes the crucial role of education in advancing the United Nations Sustainable Development Goals, which aim to address global challenges. The theme of "Transforming Education in the Digital Era" reflects the importance of integrating international cooperation and revitalizing programs such as regional student exchange initiatives to enhance education suited for the digital era. The implementation of the "Happy Learning" policy focuses on addressing various challenges faced by teachers and students, including improving their health and well-being. The meeting also acknowledged the importance of implementing the ASEAN Declaration on Strengthening Education for Children and Youth in Vulnerable Situations and the ASEAN Declaration on the Digital Transformation of Education Systems, as well as responding to global challenges by developing human resources to prepare for the future world.

Summary

Thailand is committed to achieving the Sustainable Development Goals in education through several key frameworks. These include the National Strategy 20-Year Plan (2018-2037) for improving education quality and developing 21st-century skills, the 13th National Economic

and Social Development Plan (2023-2027), and the Education Reform Plan focused on creating a quality and inclusive education system, reducing educational disparities, and developing teachers and educational staff. The National Education Plan (2017-2037) emphasizes lifelong learning and reducing inequalities to promote holistic development with a focus on "good and happy learning." Additionally, Thailand collaborates with ASEAN member states and international organizations at both regional and global levels to address educational access issues and promote lifelong learning. These efforts reflect a commitment to building an education system that meets societal and economic needs sustainably, preparing citizens for future challenges

Chapter 3

Progress in Achieving Sustainable Development Goal 4

1. Overview of Progress Towards Education Goal 4 (SDG 4)

The Ministry of Education has established a systematic framework to achieve Goal 4 on education by developing a comprehensive and step-by-step educational plan. This includes setting targets and indicators aligned with both national and global education management contexts. A guiding plan has been created to drive education towards achieving SDG 4, which encompasses consulting, systematic monitoring and evaluation frameworks, and continuous oversight of relevant agencies. This approach aims to ensure that the progress towards sustainable development in education meets established goals and effectively responds to societal needs.

Additionally, Thailand has closely collaborated with international and regional education organizations to coordinate efforts in achieving Goal 4. These initiatives focus on enhancing educational quality and learning standards, promoting equitable and high-quality educational opportunities for all children, sharing educational knowledge and innovations within the region, and encouraging educational development and experience exchange among member countries. Such cooperation allows Thailand to implement internationally recognized approaches in education development and achieve sustainable educational goals effectively.

2. Thailand's Policies and Measures for Advancing SDG 4 in Education

Recently, the Thai government has implemented several policies and measures to promote education in alignment with SDG 4. These include:

1) 15 Years of Free Education: Under Article 54 of the 2017 Constitution of Thailand, the government is required to provide 12 years of quality education—from pre-school through compulsory education—without charging fees. Additionally, the state must support educational expenses for those who lack financial resources to ensure comprehensive care and development for all individuals. This policy aims to ensure that every child can access education without financial barriers and reinforces education as a fundamental right that should not be constrained by economic factors.

In the fiscal year 2024, the government allocated a budget to support basic education expenses under a program covering all levels from kindergarten to primary education, benefiting a total of 6,552,101 students. The allocation is distributed according to the educational levels, as detailed below (data as of June 10, 2023)²:

² Guidelines for Implementing the Education Cost Support Program from Kindergarten to Basic Education Completion for Fiscal Year 2024, Page 1

Educational Level	Number (People)
Pre-Primary Education	834,907
Primary Education	2,958,004
Lower Secondary Education	1,661,637
Upper Secondary Education	1,073,458
Vocational Certificate (On-the-Job Training)	4,491
Special Education Centers	19,604

 Table 2: Number of Students Receiving Financial Support (Educational Level)

Table 3: Number of Students Receiving Financial Support (School Type)

Type of School	Number of Schools	Number of Students
Regular Schools	29,126	6,480,819
Schools for Special Education	52	31,828
Special Education Schools	50	12,517
Special Education Centers	77	19,604
Family-Based Basic Education	-	2,842
Enterprise-Based Basic Education	-	4,491

- 2) Support for Educational Expenses: The government has allocated a budget to cover essential educational expenses, such as teaching costs, textbooks, learning materials, school uniforms, and student development activities. This support aims to alleviate the financial burden on families and improve access to quality education for children from low-income families.
- 3) Increased Per Capita Subsidies: In response to the economic and social impacts of the COVID-19 pandemic, which affected various sectors including education, the Ministry of Education proposed increasing per capita subsidies. The increases include a 20% rise in teaching costs, a 15% rise in learning materials, an additional uniform set for underprivileged children, and a 30% increase in student development activities. These adjustments are intended to enhance the coverage and quality of education.
- 4) Increased Student Lunch Funding: The government has raised the lunch funding based on school size to ensure all students receive adequate nutrition. Schools with varying numbers of students are allocated funds according to specific rates. For example, schools with 1-40 students receive 36 baht per student per day, schools with 41-100 students receive 27 baht per student per day, schools with 101-120 students receive 24 baht per student per day, and schools with more than 121 students receive 22 baht per student per day.
- **5) "Thailand Zero Dropout" Policy:** Under the government's "Every Child Must Learn" initiative, the goal is to achieve zero dropout rates by integrating comprehensive data systems and creating a flexible learning system that caters to individual needs. This policy aims to provide pathways to better careers and break the cycle of poverty. The Ministry of Education, in collaboration with the Ministry of the Interior, promotes this policy through provincial education committees led by governors and provincial education officers.

6) Educational Expense Relief: During the COVID-19 pandemic, the Ministry of Education allocated a budget to provide 2,000 baht per person in financial assistance to parents, students, and learners. This support was extended to all types of educational institutions, both public and private, covering a total of 15 organizations and benefiting 9,816,966 students.

3. Agencies and Missions for Achieving SDG 4 in Thailand

In Thailand, the responsibility for education management and human resource development is shared among several key agencies. These include the Ministry of Education, the Ministry of Social Development and Human Security, the Ministry of Interior, the Ministry of Labor, the Ministry of Higher Education, Science, Research and Innovation, and the Office of the Education Council, among others. These agencies play crucial roles in collaborating to drive and achieve Sustainable Development Goal 4, which focuses on providing inclusive and equitable quality education and promoting lifelong learning opportunities for all.

3.1 Ministry of Education

The Ministry of Education is the principal agency responsible for formulating policies and developing education in Thailand comprehensively. It focuses on planning education across all levels, including early childhood, primary, secondary, vocational, and non-formal education. The aim is to enhance the quality of education to meet societal needs and labor market demands effectively.

A key responsibility of the Ministry is curriculum development, which involves updating and modernizing curricula by incorporating new technologies and innovations to improve teaching and learning. The developed curricula are designed to respond to societal changes and evolving labor market needs. Additionally, the Ministry places significant emphasis on teacher training and development, focusing on enhancing teaching skills, integrating technology into the classroom, and building necessary competencies for effective teaching.

Currently, the Ministry has implemented the "**Happy Learning**" policy to align national education with the 2017 Constitution of Thailand and the 20-Year National Strategy. This policy incorporates government education strategies to jointly elevate education quality under the guiding principle "**Hand in Hand, Moving Forward Together.**" The straightforward slogan "Happy Learning" reflects the goal of improving educational quality by ensuring the happiness of students, teachers, and parents. This focus on happiness is believed to contribute to better learning outcomes, which, in turn, enhances overall satisfaction and effectiveness in education.

3.1.1 Reducing the Burden on Teachers and Educational Personnel in Four Areas

- **Revising the Assessment System for Academic Qualifications:** Streamline the assessment process to focus on student outcomes by aligning the evaluation system with real conditions. This includes reducing paperwork and simplifying the procedures to make them more straightforward and fairer.
- Teacher and Educational Personnel Relocation: Ensure transparency in the relocation process back to their original hometowns, eliminating position trading. Additionally, assess and address teacher shortages in each area based on their original locations.
- Addressing Debt Issues: Promote proper financial planning and savings using the principles of sufficiency economy. Urgently assist those with non-performing loans (NPLs) to alleviate their financial burdens.

• **Providing Teaching Resources and Benefits:** Supply resources such as tablets to teachers to support effective teaching and learning. Ensure adequate online connectivity to meet the needs of the teaching staff.

3.1.2 Policies That Need Urgent Implementation: Reducing the Burden on Students and Parents in 6 Areas

• Anywhere Anytime Learning Policy: Implement a system or platform for free education to reduce educational disparities, providing "one student, one tablet." This policy encourages private sector involvement (businesses) in supporting and managing education, offering appropriate compensation during learning or vocational training. It integrates national learning platforms with traditional classroom teaching through hybrid education, allowing students to engage in both classroom and online learning activities. The policy also extends learning opportunities to people of all ages nationwide through a Credit Bank System, enabling simultaneous learning and work.

• One District, One Quality School Project: Develop at least one model quality school in each district or educational area to pilot the enhancement of educational standards. This involves supporting infrastructure, media, equipment, and environmental improvements with continuous annual funding.

• Career Guidance and Life Goal Setting: Update curricula and learning processes to meet global changes, focusing on developing essential life skills and curricula aligned with students' interests and needs. This aims to provide opportunities for earning during education and securing employment after graduation, in line with labor market demands. Additionally, establish a comprehensive career guidance system from early childhood to secondary education to help students discover their educational paths and life goals, allowing for adjustments throughout their educational journey.

• Certification and Professional Standards (Skill Certificate): Provide opportunities for students to earn additional certificates for their careers by using accumulated credits for qualification equivalency and professional standards certification. Support students in vocational education to obtain professional certifications while still in the educational system, allowing them to generate income during their studies and work simultaneously.

• Developing Education Level Equivalency and Assessment Systems: Create systems for recognizing or transferring academic results, skills, knowledge, experience, or competencies from the same or different institutions, including comparisons with international education systems. This will enable students with exceptional abilities to avoid repeating courses in the existing system and efficiently use their accumulated learning for entry into or certification by various institutions or systems.

• Creating Earning Opportunities During Study and Employment Post-Graduation (Learn to Earn): Continuously develop vocational education at the professional level to enhance the skills of the technical workforce. Focus on training in fields that urgently align with labor market demands, in line with national economic and social development plans and national education plans. Emphasize practical learning to develop professional and life skills, ensuring that vocational graduates are prepared for desired careers and can integrate successfully into society.

These policies and measures reflect Thailand's commitment to promoting quality and equitable education. They not only support domestic education but also demonstrate a dedication to

achieving global Sustainable Development Goals. Providing quality and equitable education is crucial for future economic and social development.

3.2 Ministry of Social Development and Human Security

The Ministry of Social Development and Human Security plays a critical role in improving the quality of life and well-being of citizens, particularly in human development. Its operations include promoting and supporting learning opportunities and life skills development for children and youth, as well as ensuring equitable access to education and supporting the potential development of vulnerable groups such as people with disabilities, marginalized communities, and the poor.

Additionally, the Ministry allocates budget and resources to support projects and activities aimed at enhancing quality of life, promoting sustainable social security, and current human development initiatives. The details include:

- 1. Life Skills Promotion Projects: This initiative aims to enhance and develop the life skills of Thai children and youth in the 21st century. It includes supporting and developing the potential of youth councils and implementing online systems to drive their operations. The Ministry also provides financial support to youth councils at all levels.
- 2. Youth Council Activities: There are 992 projects and activities conducted, with a total participation of 46,721 people.
- 3. Gender Equality in Education: The Gender Parity Index (GPI) has shown improvements in gender equality across all educational levels since 2016.
- 4. Education for Vulnerable Groups: The government promotes educational opportunities for individuals with disabilities and disadvantaged people through specialized schools for disabilities, special education centers, and inclusive education at all levels. This includes budgeting for support, providing facilities, and offering educational aids and services to ensure learners can follow individualized education plans (IIP).

3.3 Ministry of Interior

The Ministry of Interior plays a crucial role in supporting educational development and human development at the local level. Its focus is on enhancing the educational infrastructure in various areas, managing and supporting budgets for the construction and improvement of schools, promoting community-level education, and organizing life skills development activities to build the capacity of local individuals. The Ministry also coordinates with other agencies to ensure that education and human development are aligned and effective, aiming to provide equal educational opportunities and personal development to every community.

In 2023, the Ministry of Interior formulated the Local Education Development Plan (2023-2027) to guide the direction of educational management within local schools to meet national educational standards. The plan also serves as a tool for managing lifelong learning, ensuring that education addresses real issues and meets the needs of the community. This aligns with the Department of Local Administration's policy to improve the quality of education in local administrative organizations. The strategic directions and strategies outlined are as follows:

Strategy 1 focuses on improving education management by using schools as the foundation for local development. It aims to promote education that helps students reach their full potential based on their strengths and interests, and to develop curricula and learning processes that meet students' needs. The strategy also includes providing local employment support and training, creating resources for lifelong learning, and ensuring transparent and effective governance in

education. Additionally, it emphasizes the importance of local and ASEAN studies to enhance students' contextual understanding and developing quality assurance systems to maintain high educational standards and address community needs sustainably.

Strategy 2 focuses on enhancing student quality by developing language and mathematical reasoning skills (3R). The key components of this strategy include improving reading and writing skills in Thai, English, and at least one additional foreign language to enable effective international communication. It also emphasizes intensifying mathematical reasoning skills to enhance problem-solving and analytical abilities. Implementing these strategies will equip students with essential skills for learning and working in a rapidly changing society.

Strategy 3 aims to develop students' 21st-century life skills (8C) by focusing on critical thinking, problem-solving, creativity, and innovation. It also emphasizes understanding cultural differences, fostering collaboration and leadership, effective communication and media literacy, computer and technology skills, and vocational skills. Additionally, it includes the development of fundamental virtues such as empathy and discipline. By implementing these strategies, students will be better prepared to face and adapt to the rapidly changing world effectively.

Strategy 4 focuses on developing desirable characteristics and values in students by instilling Thai values and a sense of local pride. This strategy aims to foster a strong connection and pride in their culture and community. Additionally, it emphasizes the importance of environmental conservation and sustainable management of natural resources, encouraging students to take ongoing responsibility for protecting the environment. Implementing these strategies will help cultivate positive traits and important values in students, ensuring they become ethical and responsible citizens who care for both society and the environment.

Strategy 5 focuses on developing local educational networks and promoting participation in education management. The main strategies include strengthening the local education committees and school boards to ensure effective and community-responsive education management. This involves building robust networks for local education planning and oversight, enhancing the professional development of teachers, and encouraging the involvement of both government and private sectors in local education. By implementing these strategies, the goal is to foster collaboration and reinforce the education system to achieve sustainable local development.

In 2024, the Ministry of Interior will implement a plan to drive activities based on the "Development of People Across the Lifespan (From Womb to Tomb)" manual at the regional (provincial, district, and local administrative organization) levels.

3.4 Ministry of Labour

The Ministry of Labour plays a crucial role in achieving Sustainable Development Goal (SDG) 4, which focuses on ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. The Ministry supports this goal through various activities and projects, with a strong emphasis on training and skill development.

Recently, the Ministry has organized various activities to enhance skills and expand learning opportunities for the workforce. One example is the Skill Expo, held in multiple regions, which serves as a platform for knowledge exchange and innovation. This event encourages workers, businesses, and the public to adapt to new technologies. The expo features a range of activities, including discussions on developing skills for the modern world, digital technology exhibitions,

and training focused on information technology and healthcare services. Additionally, the Ministry has provided comprehensive training programs, including theoretical and practical components, in high-demand fields such as healthcare and IT. The Ministry also launched competitions for developing training materials and awarded certificates to individuals who completed training in various fields, all aimed at enhancing the skills and capabilities of workers to meet the evolving job market demands.

Furthermore, the Ministry is elevating the digital skills of Thai workers through the Global Skills Initiative (GSI) program. This initiative focuses on both basic and advanced digital skills training, helping workers to better respond to changes in the digital era and Industry 4.0. This training not only improves employability but also fosters the development of digital citizens, which is essential for strengthening Thailand's society and economy in the future.

3.5 Ministry of Higher Education, Science, Research, and Innovation

The Ministry of Higher Education, Science, Research, and Innovation has developed the policy and strategy for higher education, science, research, and innovation for 2020–2027. This framework aims to develop the national higher education, science, research, and innovation systems in a cohesive and integrated manner. The vision is to "prepare Thai people for the 21st century, develop a broadly inclusive economy, a stable society, and a sustainable environment by building world-leading innovation strength, guiding the country towards being a developed nation." The focus areas include: 1) Developing human resources and knowledge institutions, 2) Conducting research and creating innovations to address societal challenges, 3) Research and innovation to enhance competitive capabilities, and 4) Research and innovation for regional development and reducing inequality. These efforts are carried out alongside the reform of the national higher education, science, research, and innovation systems.

The Ministry of Higher Education, Science, Research, and Innovation has established key performance indicators for the success of its policy and strategy over the long term (7 years or by 2027) as follows:

Areas of Achievement	Key Indicators	Target for 2027
Development of Human Resources and Knowledge	Number of experts, engineers, and technicians to support EEC development	100,000
Institutions	(people) Proportion of graduates in STEM fields (percentage of total graduates)	50%
	Number of patents in force (per 100,000 people)	20
Enhancement of Competitive Capability	Number of innovative SMEs (firms) with sales growth of 50 million THB per firm	50,000

Table 4: Indicators of Success for the Ministry of Higher Education, Science, Research and Innovation's Policies and Strategies by 2027³

³ Policy and Strategy for Higher Education, Science, Research, and Innovation 2020–2027, page 10

Areas of Achievement	Key Indicators	Target
		for 2027
	Number of startups (firms)	10,000
	Number of technology-based enterprises	1,000
	developed (firms)	
	Ranking in scientific competitiveness	1 in 25
	according to IMD	
	Global Innovation Index (GII) ranking	1 in 35
Reduction of Social Inequality	Income of farmers participating in the	250,000
	program (THB/household/year)	
Sustainable Development and	Increase in eco-efficiency by reducing	20%
Environment	resource use and waste (percentage/year)	
Investment in Research and	R&D investment as a percentage of GDP	2.0%
Development		

Thailand's higher education system focuses on creating a quality workforce to support the country's development in research, technology, and innovation. This involves several strategies, including offering attractive compensation and benefits to motivate high-level personnel, fostering collaboration between educational institutions and industry, establishing challenging research job markets, and developing mechanisms to attract and exchange personnel across sectors to enhance knowledge transfer within the innovation ecosystem. Additionally, the promotion of lifelong learning and future skill development is emphasized through various educational and training programs, such as formal education, non-formal education, and informal learning. There is also a strong focus on developing artificial intelligence (AI) skills to adapt to technological changes and enhance labor market capabilities, including foundational skills, training AI researchers, and supporting AI applications in business and industry.

Additionally, the Ministry of Higher Education, Science, Research and Innovation has implemented a range of diverse projects aimed at closely linking education with the labor market. One such initiative is the Cooperative Education and Work-Integrated Education (CWIE) program, which provides students with the opportunity to gain practical work experience in enterprises for a minimum of 16 weeks. This program helps prepare students to enter the workforce effectively. Furthermore, the Work-Integrated Learning (WiL) program focuses on developing human resources at the vocational and undergraduate levels through real-world work experiences lasting 2 years, addressing the immediate needs of the labor market.

In the field of innovation and research development, the Higher Education Industry Consortium (Hi-FI Consortium) fosters collaboration between universities and industries to develop master's-level human resources through research and practical work on business challenges required by the private sector. Meanwhile, the Innovation Management Capability Enhancement (TIME) program focuses on developing knowledge in innovation management for entrepreneurs to boost the country's competitive ability.

Additionally, there is the Higher Education Sandbox project, which provides an alternative approach to educational management beyond traditional higher education standards. This initiative addresses the specific needs of the labor market, aiming to elevate Thai education and overcome limitations to produce graduates who meet the country's needs and keep pace with

future global changes. There is also the Talent Mobility project, which supports the relocation of research

personnel to enhance the research capabilities of the private sector. All these efforts are part of a comprehensive strategy to build competencies and develop a workforce that meets the demands of the labor market and the industrial sector.

3.6 The Education Equality Fund (EEF)

The Education Equality Fund (EEF) of Thailand was established under the Education Equality Fund Act of 2018. Its primary objectives are to provide financial support for children and youth with the greatest needs and to reduce educational inequality by fostering collaboration with various groups and conducting systematic research to enhance teacher effectiveness.

The fund is overseen by the Prime Minister and managed by a board appointed by the Cabinet. This board consists of representatives from five ministries (the Ministry of Education, the Ministry of Finance, the Ministry of Social Development and Human Security, the Ministry of the Interior, and the Ministry of Public Health) as well as independent experts from various fields (academia, the private sector, and civil society).

In recent times, the Education Equality Fund (EEF) has implemented significant initiatives to reduce educational inequality. These include various projects focused on promoting educational equity and removing barriers to education for children and youth in need of special support. These initiatives are as follows:

- 1. Learning Coins Project: An innovative initiative aimed at creating a reading foundation for disadvantaged children and youth using the "LearnBig" application. This project provides opportunities for children outside the education system to develop reading skills and support their families.
- 2. Adult Skills Assessment Project: Designed to assess the skills of low-skilled and disadvantaged workers, this project measures various skill levels, such as literacy and emotional and social skills. The data collected will be used to develop policies and strategies to improve adult workforce skills.
- 3. Youth Development Project for Out-of-School Youth: Focuses on providing education to youth who are not enrolled in the education system or are involved in the justice system. It uses a flexible education model to meet diverse needs and constraints.
- 4. **Conditional Cash Transfer Project:** Based on research, this project aims to improve the allocation of educational budgets to meet students' needs by reducing costs and barriers to attending school.
- 5. "I SEE THE FUTURE" Project: Aims to address vision problems among children in local communities, ensuring they can see clearly and have better opportunities for development and success in the future.
- 6. **iSEE** (**Information System for Educational Equity**) **Project:** A large database that collects information on over 4 million disadvantaged children and youth, linking personal identification numbers with government databases and GIS data to improve education management and policy planning.
- 7. Equity Partnership Schools Network, Season 5: An online project via the Zoom platform focused on developing the skills of scholarship students and international school students, preparing them to become successful and capable entrepreneurs in the business world.

4. Monitoring and Evaluation of SDG 4

The roadmap for advancing sustainable development in education sets up a monitoring and evaluation system to ensure that the implementation of Sustainable Development Goal 4 (SDG 4) is on track and to enable effective adjustments to strategies and approaches. Data and sources used for monitoring and evaluation are crucial as follows:

4.1 Sources of Data for Real-Time and Annual Reporting:

- **Priority Sources**: These include primary data sources that are continuously and annually collected. They provide up-to-date results and a clear national overview, such as school performance data, national education statistics, and national education surveys.
- Secondary Sources: These sources, collected every other year or every three years, are also important. They often come from reliable surveys or research but are not updated annually. They are valuable for in-depth or detailed research data, such as data from the National Statistical Office, the National Educational Testing Institute, and educational research studies.
- **Development of New Sources**: When clear or continuous data sources are lacking, additional sources need to be developed. This may involve conducting local surveys or research to gather relevant data and present clear results. Local agencies may carry out these surveys or research projects as needed to fill data gaps.

4.2 Determining Sub-Indicators for SDG 4

The indicators and data sources used for monitoring and evaluating Thailand's progress towards achieving SDG 4 are outlined in the following table for the 10 sub-targets.

Table 5: Definition of Sub-Target Indicators for SDG 4 in Thailand

Indicators and data sources to be used for tracking and evaluating Thailand's progress towards achieving SDG4, with its 10 sub-goals, are as follows:

Goal 4: Ensure inclusive and equitable quality education and promote lifelong	
learning opportunities for all	

4.1 Ensure that all girls and boys complete	4.1.1 The proportion of children/youth in (a)
free, equitable, and quality primary and	Grade 2 or 3, (b) Grade 6, and (c) Grade 9
secondary education leading to relevant and	who meet at least the minimum proficiency
effective learning outcomes by 2030	standards in (1) reading and (2) mathematics
	or numeracy, disaggregated by sex.
	4.1.2 The graduation rate for primary
	education, lower secondary education, and
	upper secondary education.
4.2 Ensure that all boys and girls have	4.2.1 Percentage of children under 5 years
access to quality early childhood	old who meet the developmental milestones
development, care, and pre-primary	in health, learning, and personal development
education so that they are ready for primary	according to their age, disaggregated by sex.
education by 2030.	
	4.2.2 Enrollment rate in early childhood
	education (at least 1 year before reaching the

	primary school entry age), disaggregated by sex.
4.3 Ensure that all men and women have access to quality education, vocational training, and higher education, including universities, at an affordable cost by 2030.	4.3.1 The rate of enrollment of youth and adults in both formal and non-formal education systems, including training programs, over the past 12 months, disaggregated by gender.
4.4 Increase the number of youth and adults with relevant skills, including technical and vocational skills, for employment, decent work, and entrepreneurship by the year 2030.	4.4.1 The proportion of youth and adults with information and communication technology (ICT) skills, disaggregated by type of skill.
4.5 Eliminate gender disparities in education and ensure equal access to education and vocational training at all levels for vulnerable groups, including persons with disabilities, indigenous peoples, and children, by 2030.	4.5.1 The equity index (female-male/urban- rural/wealthy-poor, and others such as disability status, indigenous people, and those affected by conflict if data is available) for all indicators in this list that can be disaggregated.
4.6 Ensure that all youth and adults, both male and female, achieve high literacy and numeracy skills by 2030.	4.6.1 The proportion of the population in a specified age group who have the skills necessary for work in: (a) literacy and (b) numeracy, disaggregated by gender.
4.7 Ensure that all learners acquire the knowledge and skills necessary to promote sustainable development, including education for sustainable development and sustainable lifestyles, human rights, gender equality, the promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and its contribution to sustainable development by 2030.	4.7.1 The extent to which (i) global citizenship education and (ii) education for sustainable development are incorporated as core elements in (a) national education policies, (b) curricula, (c) teacher education, and (d) assessment.
4.a Build and upgrade educational facilities, as well as tools and resources that are sensitive to children, persons with disabilities, and gender considerations, and ensure the provision of a safe, violence-free, inclusive, and effective learning environment for everyone.	4.a.1 The proportion of schools with access to basic services, categorized by type of service: (a) electricity, (b) internet used for teaching and learning, (c) computers used for teaching and learning, (d) infrastructure and equipment adapted for students with physical disabilities, (e) basic drinking water, (f) basic sanitation facilities separated by gender, and (g) basic handwashing facilities (as defined by WASH indicators for water, sanitation, and hygiene for all).

4.b Increase the number of scholarships globally provided to developing countries, especially least developed countries, small island developing states, and countries in Africa, for higher education, including vocational training and programs in information and communication technology, technical fields, engineering, and science in developed and other developing countries by 2020.	4.b.1 The amount of official development assistance (ODA) provided as scholarships, categorized by field of study and type of education.
4.c Increase the number of qualified teachers, including through international cooperation to support teacher training in developing countries, especially least developed countries and small island developing states, by 2030.	4.c.1 Proportion of teachers with relevant qualifications for providing basic education, disaggregated by education level. The proportion of teachers in the following levels: (a) Early Childhood Education, (b) Primary Education, (c) Lower Secondary Education, and (d) Upper Secondary Education, who have at least received training (e.g., teacher training) that must be undertaken before or during the teaching period at the relevant level in each country.

5. Problems and Challenges in Thailand's Education Management

Over the past decade, rapid global changes and technological advancements that connect the world have necessitated adjustments by countries to enhance their competitive capabilities. Scientific and technological progress, along with swift digital transformations, have impacted daily life and communication, making learning exchanges and business creation easier. These changes also affect culture, society, and national development, compelling countries to compete on a global stage. Education management must therefore respond quickly to these changes and enhance educational capabilities to be internationally competitive in a VUCA (Volatility, Uncertainty, Complexity, Ambiguity) world. International organizations have developed indicator indices to assess a country's capabilities, recognizing that education is a critical factor in measuring national performance and competitiveness on the global stage.

Thailand continues to prioritize the development of its education system by implementing policies and education plans to advance the country seriously. The government allocates a significant annual budget to the Ministry of Education, with 328,384,658,100 baht designated for fiscal year 2024, representing 10.2% of the total budget. Despite progress in creating educational opportunities, Thailand's education quality remains problematic compared to international standards. According to the International Institute for Management Development (IMD), Thailand ranks 30th out of 64 countries, with its lowest ranking in education compared to enhance global competitiveness.

Additionally, research findings reflected through national and international statistics and rankings show that Thailand's education system has not achieved the desired level of success in several areas. The quality of education remains a concern, with student performance on national tests, such as O-NET, and international rankings, such as PISA, remaining low. Educational inequality persists, as many children cannot access quality education due to various limitations, with larger schools receiving more resources compared to smaller, resource-limited schools in remote areas. Despite substantial investment in education, with a budget comparable to developed countries, educational outcomes do not align with the allocated budget. Furthermore, some graduates possess skills and competencies that do not match employer needs, significantly impacting the country's development and competitive ability, as evidenced by international rankings such as those from the International Institute for Management Development (IMD).

5.1 IMD 2023 Educational Competitiveness Ranking

The International Institute for Management Development (IMD) is a business school with its IMD World Competitiveness Center, which publishes annual reports on the competitiveness of various countries through the IMD World Competitiveness Yearbook (WCY). This ranking reflects a country's strengths and weaknesses in comparison to others and impacts international confidence in the country. The data from these rankings serve as a crucial foundation for formulating policies and economic development plans.

IMD also produces the IMD World Talent Ranking (WTR), which ranks countries based on their ability to develop, attract, and retain skilled personnel or high-skilled labor—an essential factor in enhancing a country's competitiveness. Additionally, IMD publishes the IMD World Digital Competitiveness (WDC) report, which assesses a country's ability to transition to a digital economy. These rankings are based on data from three main sources:

- 1. **Statistical Data/Secondary Data:** Collected from international, national, and regional organizations such as OECD, World Bank, UN, WTO, UNESCO/UIS, IMF.
- 2. Survey Data (Soft Data): Gathered from surveys of mid-level and senior executives to reflect current and future competitiveness, using a satisfaction scale of 1-10.
- 3. Background Data: Used only as reference data and is not considered in the overall ranking.

5.2 Overview and Education Sector Rankings for Thailand in 2023

The IMD Institute has published its international competitiveness rankings report, which assesses the economic development capabilities of each country by reflecting their strengths and weaknesses in comparison to others. For 2023, the report ranks 64 economies (including Kuwait). The report is divided into two main sections: Thailand's overall competitiveness ranking and Thailand's education sector ranking for 2023.

In the 2023 rankings, Thailand's overall competitiveness has improved, with the country ranking 30th, up 3 positions from the previous year (2022, ranked 33rd). However, in terms of the education sector, Thailand's ranking is 54th, which is a drop of 1 position from the previous year (2022, ranked 53rd). Over the past 5 years, Thailand's overall education ranking has remained relatively stable. This year, Thailand has shown significant improvement in one education indicator: the total education budget per student at all levels, which is now \$1,600 (57,175.20 THB

Table 6: Thailand's Overall and Education Competitiveness Rankings for 2023 in the IMD World Competitiveness Yearbook

IMD World Competitiveness Yearbook (WCY)	2562 (63)	2563 (63)	2564 (64)	2565 (63)	2566 (64)	Cha	inge
Overall	25	29	28	33	30	1	+3
Education	56	55	56	53	54	₽	-1

In 2023, IMD used the same 19 education indicators as in 2022. The results showed that Thailand improved in 8 of these indicators, most of which are based on survey data. Notable observations include:

- 1. **PISA Test Results and PISA Evaluation Coverage**: Despite improvements in rankings, the indicators related to PISA test results and the percentage of students covered by PISA assessments remain low. The rankings are still based on the PISA 2018 results.
- 2. Secondary School Enrollment Rate: Although the ranking for the secondary school enrollment rate improved by one position to 58th, the actual percentage of enrollment decreased from 77.5% to 74.6%.

2563 (63) 2564 (64) 2565 (63) 2566 (64) **Education Indicators** Change Value Rank Value Rank Value Rank Value Rank 1) Total public expenditure on 1600 1294 53 1294 53 1294 53 52 ♠ +1education per student (2021)(US\$) 2) Secondary school enrollment (%) 77.3 57 72.7 77.5 59 74.6 58 ♠ +161 (2020)3) PISA test results M419 M419 M419 M419 (Mathematics and S426 50 S426 50 S426 50 S426 49 ♠ +1Sciences) R393 R393 R393 **R393** 4) Percentage of students not classified 31.2 50 31.2 50 31.2 50 31.2 48 +2as low achievers (2018)(PISA) 5) Primary and secondary education's 5.8 39 5.8 42 5.56 43 6.26 32 ♠ +11responsiveness to (2023)competitive needs* 6) University education's 5.96 38 5.95 37 5.78 41 6.34 33 +8♠ responsiveness to (2023)competitive needs*

Table 7: Thailand's Improved Education Indicators Rankings for 2023 (8 Indicators)

	2563 (63)		2564 (64)		2565 (63)		2566 (64)			
Education Indicators	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Ch	ange
7) Management education's responsiveness to business needs*	6.45	34	6.21	37	6.22	37	7.07 (2023)	19	1	+18
8) Language skills' responsiveness to business needs*	5.02	47	5.02	46	4.97	50	5.38 (2023)	47	1	+3

/Note: Numbers in parentheses indicate the number of countries included in the ranking for that year. *Survey Data **Background Data

Education Indicator	2563	(63)	2564	(64)	2565	(63)	2566	(64)	Ch	ange
Education indicator	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Chi	unge
1) Total public expenditure on education (% GDP)	3.00	58	3.00	59	3.70	49	3.6 (2021)	51	₽	-2
2) Total publicexpenditure oneducation per capita(US\$ per capita)**)	229	56	247	57	279	56	274 (2021)	57	ŧ	-1
3) (Pupil-teacher ratio(primary education)(%))	16.2	36	15	30	14	28	14.37 (2021)	32	₽	-4
4) Pupil-teacher ratio (secondary education) (%)	24.16	57	25.95	60	23.59	57	22.86 (2021)	58	₽	-1
5) Higher education achievement	33	48	32	49	34	45	35 (2021)	46	₽	-1
6) Inbound student mobility (per 1,000 population)	0.48	53	0.48	54	0.38	53	0.38 (2020)	54	₽	-1
7) (Student mobility outbound**)	0.49	53	0.5	54	0.49	54	0.48 (2020)	55	₽	-1
8) English proficiency (TOEFL)	78	59	80	58	83	57	83 (2021)	58	₽	-1
9) University education index	2.02	49	2.6	48	2.58	47	2.55 (2022)	48	₽	-1

Education Indicator	2563 (63)		2564 (64)		2565 (63)		2566 (64)		Change	
	Value	Rank	Value	Rank	Value	Rank	Value	Rank		
10) Literacy rate among population aged 15 and above (%)	6.2	58	6.2	57	6.2	58	6.2 (2018)	59	₽	-1

*Note: Numbers in parentheses indicate the number of countries included in the ranking for that year. *Survey Data **Background Data

Indicators with a decreased ranking include 10 indicators, most of which are derived from statistical data (hard data) and are related to higher education. Details are shown in Table 8.

 Table 9: Rankings of Educational Indicators with Stable Positions for Thailand in 2023

 (1 Indicator)

Education Indicator	2563 (63)		2564 (64)		2565 (63)		2566 (64)		Change	
Education indicator	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Cilu	nge
1)Percentage of Women with Higher Education Degrees	24.9	47	24.9	47	24.9	48	26.6 (2021)	48	{ }	-

Note: The numbers in parentheses indicate the number of countries included in the ranking for that year.

The indicator that maintained its ranking is the ratio of female higher education graduates. This indicator remained at rank 48, while the ratio increased from 24.9 to 26.6. Details are shown in Table 9.

5.3 Results of PISA 2022

5.3.1 The Programme for International Student Assessment (PISA) is an international survey that evaluates the learning outcomes of students in various countries. It focuses on assessing the key knowledge and skills that students acquire through their education. The primary objective of PISA is to provide policymakers with information on the effectiveness of educational systems in preparing young people for future life and work. PISA assessments emphasize the application of knowledge in real-life situations outside the classroom, a concept known as "literacy." The assessment covers three main areas: Reading Literacy, Mathematical Literacy, and Scientific Literacy.

In Thailand, the Institute for the Promotion of Teaching Science and Technology (IPST), under the Ministry of Education, serves as the main agency responsible for implementing PISA as the national center. The IPST coordinates with a sample of schools across the country. For the PISA 2022 assessment, Thailand sampled 8,495 students aged 15 from 279 schools. This included schools from the Office of the Basic Education Commission (62%), the Office of the Private Education Commission (12%), the Bangkok Metropolitan Administration (0.5%), the Department of Local Administration, Ministry of Interior (6%), university demonstration schools (1%), vocational colleges under the Office of the Vocational Education Commission (19%), and 14 science-focused schools (0.3%). Data was collected in August 2022, and the official results were published on December 5, 2023. The assessment of creativity will be published in December 2024. For the next round of PISA in 2025, a trial run of the assessment tools will occur in August 2024, with the main research conducted in August 2025, providing just over a year for preparation for teachers and students who may be selected for the sample.

Based on the results of the PISA 2022 assessment, the distribution of the test content was as follows: 60% in mathematical literacy, 20% in scientific literacy, and 20% in reading literacy. The top 10 countries with the highest rankings, based on mathematical scores, were compared with Thailand and ASEAN countries as follows:

Rank	Country	Educational Achievement in 2022		
		Math	Science	Reading
1	Singapore	575	561	543
2	Macau	552	543	510
3	Chinese Taipei	547	537	515
4	Hongkong	540	520	500
5	Japan	536	547	516
6	South Korea	527	528	515
7	Estonia	510	526	511
8	Switzerland	508	503	483
9	Canada	497	515	507
10	Netherlands	493	488	459
	OECD average	472	485	476
31	Vietnam	469	472	462
40	Brunei Darussalam	442	446	429
53	Malaysia	409	416	388
58	Thailand	394	409	379
69	Indonesia	366	383	359
75	Philippines	355	356	347
81	Cambodia	336	347	329

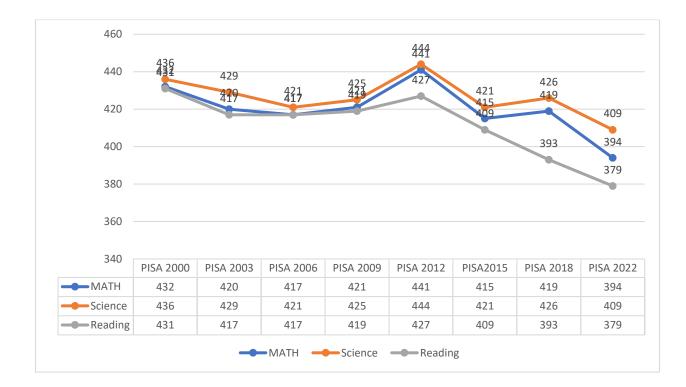
Table 10: PISA 2022 Results of Thailand Compared to Other Countries Worldwide

According to the table, the top performers in mathematics for the PISA 2022 assessment were Singapore (ranked 1st), Macau (2nd), and Taipei, China (3rd). Thailand's scores, however, were below the OECD average. In comparison with ASEAN neighbors, Thailand scored lower than Vietnam, Brunei, and Malaysia.

Moreover, examining the trend in Thailand's average scores from 2000 to 2022 reveals a downward trajectory in all three subjects. Among these, reading literacy showed the most significant decline in average scores, indicating a particular weakness in students' reading abilities. This decline has also negatively affected the average scores in other subjects. Detailed information is illustrated in Figure 1.

Figure 1: Average PISA Scores for Thailand, 2000 - 2022

This diagram illustrates the trend of average PISA scores for Thailand across three subjects—mathematics, science, and reading—from 2000 to 2022.



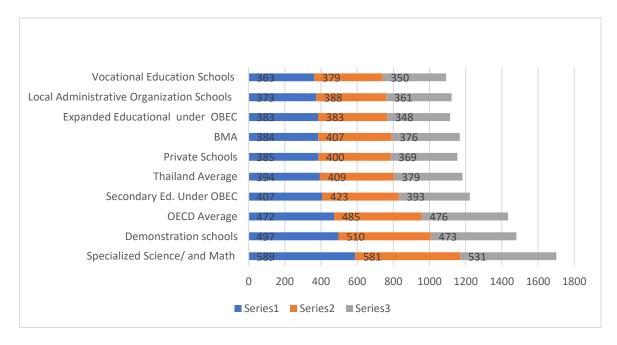
When examining Thailand's PISA test results by school affiliation, it is found that only the group of schools focused on science and mathematics—namely, Chulabhorn Science School, Mahidol Wittayanusorn School, and Kamnoetvidya Science Academy—and the group of demonstration schools have average scores higher than the OECD member country average. Meanwhile, the three groups of schools with the lowest average scores are institutions under the Office of Vocational Education Commission (OVEC), schools under Local Administrative Organizations (LAOs), and expanded opportunity schools under the Office of the Basic Education Commission (OBEC). Details are provided in Table 11.

Table 11: PISA 20	022 Test Results	for Thailand b	y School Type
-------------------	------------------	----------------	---------------

School Type	Math	Science	Reading
Specialized Science and Mathematics Schools	589	581	531
Demonstration Schools	497	510	473
OECD Average	472	485	476
Vocational Education Institutions (OVEC)	407	423	393
Thailand Average	394	409	379
Private Schools	385	400	369

Bangkok Metropolitan Administration (BMA) Schools	384	407	376
Expanded Educational Opportunity Schools (under the Office of the Basic Education Commission - OBEC)	383	383	348
Local Administrative Organization Schools (under the Ministry of Interior)	373	388	361
Vocational Education Schools (under the Office of the Vocational Education Commission)	363	379	350

Figure 2: PISA 2022 Test Results for Thailand by School Affiliation



From the analysis of PISA test results for various school affiliations from 2000 to 2022, the trends in scores across all subjects show consistency, reflecting distinct educational patterns. Schools focusing on science and mathematics, demonstration schools, and secondary schools under the Office of the Basic Education Commission (OBEC) have the highest average scores in all three subjects: mathematics, science, and reading. In contrast, the schools with the lowest average scores include institutions under the Office of the Vocational Education Commission (OVEC), local government schools, and extended education schools under OBEC. This data highlights a clear disparity in educational quality based on school type and underscores the challenge of improving the education system to ensure equity and higher quality across all types of institutions.]

5.4 Outcomes of the National Education Plan

Thailand has implemented the National Education Plan 2017-2036 and has conducted monitoring and evaluation for the first five years of the plan (2017-2021). The key findings from this monitoring and evaluation are summarized as follows:

5.4.1) Monitoring the Operation of Various Education-Related Agencies. It was found that:

(1) There is a comprehensive process for implementing the National Education Plan, as expected. This process aligns with qualitative assessments from each agency, which reflect their understanding of the National Education Plan, awareness of their missions, roles, and operational guidelines according to the plan. Additionally, the exchange and delivery of policies among relevant agencies are varied and adapted to the context of each agency.

(2) The strategies have been implemented across all six strategic areas, with each agency at different levels focusing on different strategies based on their roles, responsibilities, and context.

(3) The performance of relevant agencies is systematically monitored. Each agency has its own diverse monitoring systems, with a strong emphasis on achieving the established indicators.

5.4.2) Evaluation of Outputs, Outcomes, and Impacts from Education Management According to Objectives, Goals, and Indicators. It was found that:

(1) The evaluation of the Ministry of Education's performance during the urgent phase (2017-2018) found that out of the five urgent areas of action, only one showed a trend towards achieving the National Education Plan's goals. This was Area 2: Expanding high-speed internet services and utilizing DLIT (Digital Learning and Innovation Technology) and DLTV (Digital Learning Television) to enhance access to education for schools in remote areas and improve the quality of teaching for general schools.

(2) The evaluation of performance and education management according to the plan's indicators for the first five years, which include five target areas—Access to educational opportunities, Educational Equity, Quality of education, Efficiency, and Relevancy to changing contexts—revealed that:

Regarding access to educational opportunities, there are 2 indicators that can be achieved according to the target criteria of the National Education Plan in its initial phase. These indicators are: the increase in the proportion of upper secondary students (ages 15-17) relative to the population aged 15-17, and the provision of high-speed and quality internet access at all educational institutions.

In terms of educational equity, the implementation of the National Education Plan during the period 2017-2021 has not yet achieved the target criteria for educational equity.

Regarding the quality of education, there are 4 indicators that can be fully achieved according to the target criteria of the National Education Plan: 1) an increase in the percentage of children aged 0-5 years with age-appropriate development; 2) an increase in the percentage of students participating in activities or projects related to promoting an environmentally friendly quality of life; 3) an increase in the percentage of students participating in activities aligned with the philosophy of sufficiency economy; and 4) an increase in the percentage of educational institutions offering civic education.

Regarding effectiveness, there are 9 indicators that can be achieved according to the target criteria of the National Education Plan: 1) Improvement in the administrative structure of the Ministry of Education; 2) An efficient personnel management system for teachers and educational staff that meets standard criteria; 3) A suitable quality assurance system for education that aligns with the context and needs of educational institutions; 4) Development of

an educational database for planning, management, monitoring, and evaluation purposes; 5) An advanced digital technology network for education that effectively meets the needs of users; 6) Mechanisms to encourage all sectors to support resources for educational management; 7) Adjustments in the allocation of funds towards demand or the learners themselves; 8) Revisions to laws regarding the autonomy and accountability of educational institutions; and 9) A reduction in the dropout rate of students at the basic education level.

Regarding responsiveness to changing contexts, there are 3 indicators that have been fully achieved according to the target criteria of the National Education Plan: 1) An increase in the satisfaction ranking of employers with higher education graduates (IMD); 2) An increase in the percentage of educational institutions integrating STEM (Science, Technology, Engineering, and Mathematics) education; and 3) The establishment of a comprehensive database of workforce demand categorized by industry.

Therefore, out of a total of 52 indicators according to the National Education Plan's targets, only 18 indicators have fully met the plan's target criteria. This indicates that there are still many indicators that have not achieved their objectives.

5.5) Results of Education Management According to the National Education Act B.E. 2542 The analysis and monitoring of education management according to the National Education Act B.E. 2542 (1999) provide crucial insights into the overall state of the education system. The summary of findings is as follows:

- (1) The successes in education management over the past period include increased access to educational systems for learners, enhanced promotion and integration of technology in education, expanded choices for different educational formats, growth in diverse learning resources that play a more significant role in student development, and a strengthened role of the private sector and civil society in driving educational advancements.
- (2) The issues that have not yet been successfully addressed in the education system include the social value placed on prestigious schools, which results in students from less well-known schools having fewer educational opportunities. Teachers are burdened with numerous responsibilities beyond teaching, such as administrative tasks, which reduces their teaching effectiveness. The allocation of personnel and resources remains inadequate and unsuitable, leading to educational disparities, especially in small and remote schools. Educational institutions suffer from a shortage of various types of personnel, such as guidance counselors, advisors, psychologists, and administrative staff. Furthermore, the education database is still ineffective, incomplete, and outdated, preventing the full utilization of data for beneficial purposes.
- (3) The key principles and essentials for current education management include making curriculum improvements to be flexible, focusing on the development of skills and competencies of learners, and adapting to global changes. Promoting educational equity to ensure that children in all areas have equal access to education, supporting lifelong learning with an emphasis on local wisdom, career development, and community advancement without neglecting global trends and innovations. Ensuring fair educational support to guarantee children's rights and reduce disparities, and clearly defining the roles, powers, and responsibilities of civil society organizations, communities, and the private sector in contributing to educational development.
- (4) Mechanisms that should be implemented to achieve success in education management include accurate and up-to-date educational data management that is accessible and usable. The effective use of information technology and data management throughout all processes,

establishing cooperative networks for implementing the National Education Act from all sectors, and having laws and regulations that align with the National Education Act, with a focus on investing in and promoting teacher training institutions for effectiveness and continuity.

6. Implementation and Progress in Achieving Educational Targets

Thailand is committed to achieving Goal 4 of the Sustainable Development Goals (SDGs), which focuses on providing quality and equitable education for all. The Thai government supports various initiatives, such as improving the education system to meet the needs of students and the labor market, promoting lifelong learning, and reducing disparities in access to education. The aim is to use education as a tool to enhance opportunities and develop the capabilities of all citizens sustainably. The following actions have been undertaken to address the targets within Goal 4:

Target 4.1: Ensure that all girls and boys complete free, equitable, and quality primary and secondary education leading to relevant and effective learning outcomes by 2030.

The Ministry of Education is committed to achieving SDG Target 4.1, which aims to ensure that all girls and boys complete quality and equitable primary and secondary education free of charge by 2030. The actions to achieve this target include enacting relevant laws and regulations, setting appropriate policies, and improving teaching processes. These improvements encompass developing curricula that address the needs of all student groups, promoting access to education regardless of economic constraints, and enhancing the quality of education to ensure the most effective learning outcomes and equal opportunities for everyone.

To align with these principles and address the ever-evolving educational challenges, the National Education Plan 2017-2036 has established strategies focused on creating opportunities, equity, and equality in education. The main objectives are:

- Ensuring that all learners have equal opportunities to access quality education: Key indicators include reducing the equity index of basic education enrollment rates based on economic status and region, and decreasing the differences in average scores on the National Education Testing (O-NET) between areas/regions in mathematics and English.
- Increasing educational opportunities through digital technology for all age groups: Important indicators include having a modern digital technology network for education that meets the needs of learners and users effectively and comprehensively, and ensuring that all educational institutions are equipped with high-speed and high-quality internet
- Establish a comprehensive, accurate, and up-to-date system for managing personal and educational information: This system will support education management planning, monitoring, evaluation, and reporting. Key indicators include having a personal database system referencing 13-digit national ID numbers that can connect, exchange, and share data between the Ministry of Education and other sectors such as public health, social services, geographic information, labor, and education. The system should also be unified across the country, accurate, and current. Development guidelines include enhancing opportunities and equity in accessing quality education, developing digital technology systems for all age groups, and creating standardized, linked, and accessible educational databases. Important initiatives include projects like creating a comprehensive personal database across various sectors, including public health, social services, geographic information, labor, and education.

Thailand's efforts towards this goal have led to the development of learners across all age groups according to their potential. Learners are equipped with language skills, critical thinking, scientific and technological process skills, and creative thinking skills. The assessment and evaluation of learners focus on 21st-century learning and essential skills, enabling them to build upon their learning through systematic thinking processes. The emphasis is on fundamental learning and life skills such as decision-making, problem-solving, synthesis, creativity, teamwork, and communication, based on moral values, ethics, and good values, as well as specialized knowledge skills considering individual differences and interests, both academic and vocational.

It can be said that the situation regarding access to education and graduation rates in Thailand has shown a continuous improvement. There has been an increase in the proportion of children enrolled in early childhood education and the graduation rates at the primary and lower secondary levels. In early childhood education, the enrollment rate increased from 84.7% in 2016 to 86.3% in 2019. At the compulsory education levels, namely primary and lower secondary education, graduation rates have significantly increased from 91.8% and 90.1% in 2016 to 98.2% and 96.9% in 2019, respectively.

However, the graduation rate at the upper secondary level has shown a declining trend, from 81.7% in 2016 to 78.6% in 2019. Additionally, gender parity in access to education has been continuously improving, with the Gender Parity Index (GPI) across all education levels increasing between 2016 and 2019, indicating progress in achieving gender equity within the Thai education system.

Recent efforts have highlighted the importance of promoting education and supporting the costs associated with education for students from early childhood through basic education, including essential expenses such as tuition fees, textbooks, learning materials, student uniforms, and student development activities. However, the COVID-19 pandemic has impacted the economy and society, including the country's education management. To support education and reduce disparities, the Ministry of Education has proposed an increase in per-student funding based on basic needs, including student lunch costs, which has been approved by the Cabinet.

- 1. Increase in Per-Student Funding:
 - **Tuition Fees:** Increased by 20%.
 - Learning Materials: Increased by 15%.
 - **Student Uniforms:** Provided as a complete set with an additional set for students from low-income families.
 - Student Development Activities: Increased by 30%.
- 2. Adjustment of School Lunch Funding:
 - Schools with 1–40 students: 36 baht per student per day.
 - Schools with 41–100 students: 27 baht per student per day.
 - Schools with 101–120 students: 24 baht per student per day.
 - Schools with more than 121 students: 22 baht per student per day.

These measures aim to enhance educational opportunities, reduce the financial burden on students, and improve the educational management capabilities of schools.

In addition, the Ministry of Education has implemented significant projects to create educational opportunities, such as the "Bring the Children Back to School" project, which started in 2020. The objective of this project is to promote education and reduce educational disparities in

Thailand. It focuses on helping students who lack access to education, particularly in remote areas or those from impoverished backgrounds, to reduce dropout rates and help students return to their studies.

The project involves identifying and tracking students who have dropped out, left midway, or fallen out of the education system, and reintegrating them into the educational system. It includes the collaboration of 12 agencies and various departments under the Ministry of Education. The project has developed a tracking tool using the "Bring the Children Back to School" application to facilitate efficient and swift operations and to maintain a detailed database of students, including the causes of issues affecting each family. As a result, a total of 121,050 students, including those with disabilities, have been reintegrated into the education system from a total of 121,642 students, leaving 592 students still to be re-enrolled.

Additionally, the Ministry of Education has implemented a policy to elevate the quality of education to its fullest potential under the working approach "Hold Hands and Move Forward Together," which places students at the center. The concept "Learn Well, Be Happy" aims to reduce disparities and continuously improve the quality of education. This initiative focuses on developing and updating curricula and learning processes to keep pace with global changes, ensuring that students at all educational levels acquire the skills necessary for their lives. The curricula are designed to address students' interests and needs, as well as to support earning income while studying and securing employment after graduation, aligning with labor market demands.

Thailand has established **Education Sandbox areas** to reduce educational disparities by tailoring education to fit the context of each region. This approach allows for autonomy in curriculum design, teaching methods, and school management, while fostering flexible management. Additionally, it focuses on collaborative development between the government, local administrative organizations, the private sector, and civil society to address local issues. This initiative aims to enhance the country's education system, which is a crucial foundation for improving the quality of Thai people.

The key principle is decentralizing authority, allowing schools and educational areas to manage their own curricula, personnel, and teaching methods. Schools and regions are empowered to develop curricula that suit local needs while remaining aligned with essential core curricula. Furthermore, these areas serve as testing grounds for new educational innovations, including the implementation of 21st-century skills curricula tailored to local contexts, the provision of new teaching media, and the creation of partnerships to develop local personnel.

Regarding the development of educational quality to achieve target 4.1, the National Institute of Educational Testing Service (Public Organization), or NIETS, plays a crucial role in evaluating and testing educational outcomes according to established standards at both national and international levels. NIETS focuses on creating a reliable and high-quality testing system to advance Thai education in line with global benchmarks.

In the 2015 academic year, NIEST began publishing the test questions and answer keys for the National Test of Basic Education (O-NET) for the first time. This initiative aimed to provide access for interested parties to use the materials for practice and self-development.

In the 2016 academic year, NIETS introduced innovative assessment methods by incorporating essay-type questions in the Thai language test for Grade 6 students. This format helped assess students' abilities in reading, writing, analytical thinking, comprehension, and connecting ideas.

The adoption of this testing format allowed both students and schools to use the results to enhance learning and improve teaching practices effectively.

Subsequently, in the 2021 academic year, the use of essay-type questions was extended to the Thai language test for Grade 9 students, and research began on implementing essay-style tests for the English language. The plan was to conduct these tests in the 2022 academic year to support the development of English language skills and prepare for integration into the ASEAN Economic Community (AEC). Additionally, in the 2021 academic year, NIETS developed an online testing system to further enhance educational quality. This system allowed learners and interested parties to take tests online at any time, helping them identify their strengths and areas for improvement, and use the results for personal development planning.

Since 2014, NIETS has promoted the use of O-NET test results to improve educational quality by providing training for school administrators, teachers, and educational personnel. This training focuses on developing skills in measurement and assessment, creating test questions aligned with curriculum standards, and utilizing test data to enhance teaching quality and continuously improve student learning outcomes.

Goal 4.2: Ensure that all boys and girls have access to quality early childhood development, care, and pre-primary education so that they are ready for primary education by 2030.

Over the past decade, Thailand has made notable progress in the management and development of early childhood education, particularly since 2008. The focus has been on enhancing cooperation between parents and communities in developing children, promoting health, and fostering discipline and overall development in physical, mental, and emotional aspects.

At the kindergarten level, education has been organized with an emphasis on promoting institutions that create comprehensive learning experiences covering all areas such as physical development, intellect, emotional well-being, and social skills. This is achieved through the cultivation of discipline, ethics, and positive values via collaboration among parents, communities, and educational institutions. Additionally, there is a focus on developing systemic thinking and enactive practices that align with brain-based learning, as well as creating an environment in schools that models desirable behavior and life practices.

These advancements have resulted from the collaboration of various public and private sectors, including the development of more comprehensive and systematic policies and strategies. One notable achievement is the establishment of the National Standards for Early Childhood Development Centers, which was approved by the Cabinet on January 2, 2019. This standard is crucial for assessing and enhancing the quality of early childhood development centers, covering aspects such as holistic child care and development, physical and health development, cognitive, language and communication development, emotional and social development, and preparation for transition to primary education. The establishment of these standards provides a clear and objective framework for evaluating the quality of care and education in early childhood settings.

In addition, in 2021, the development of the Early Childhood Development Plan 2021-2027 was initiated by the Early Childhood Development Policy Committee established under the Early Childhood Development Act 2019. This plan outlines policies and strategies that integrate the efforts of all relevant ministries and agencies to reduce redundancy and ensure coherence in operations, responding to the constitution and sustainable development goals.

Another advancement in early childhood development is the establishment of a centralized early childhood database, which the Office of the Education Council has been implementing since 2022. This database enhances the efficiency of tracking and evaluating the performance of early childhood development centers by integrating data from various agencies to ensure connectivity and effective use. Additionally, the integration of cooperation among six key ministries—namely the Ministry of Social Development and Human Security, the Ministry of Public

Health, the Ministry of Interior, the Ministry of Digital Economy and Society, the Ministry of Labour, and the Ministry of Education—further strengthens the linkages in enhancing the quality of life for young children, ensuring their growth and development to their full potential in a comprehensive and equitable manner.

Goal 4.3: Ensure that all men and women have access to quality education, including vocational education and higher education, at an affordable cost by 2030

Thailand has been dedicated to ensuring that all citizens have access to quality education at all levels, including vocational and higher education, with a focus on developing comprehensive policies and measures to meet the needs of the current job market and evolving work environment. In vocational education, curricula have been updated to emphasize practical training, the use of new technologies, and skills development. This includes adopting innovative learning methods and problem-based approaches to foster creativity and effectiveness in students. For higher education, Thailand has made strides in aligning its educational standards with international benchmarks, updating curricula to emphasize fields like Science, Technology, Engineering, and Mathematics (STEM), and boosting research and innovation to drive economic growth. Additionally, the development of online learning platforms supports lifelong education, providing ongoing opportunities for professional development and addressing labor market demands. Overall, these efforts aim to create a robust and sustainable educational system that ensures Thailand's competitiveness on a global scale.

In Thailand, vocational education management emphasizes hands-on experience aligned with technological advancements and practical application in real life. This field is continuously evolving to keep pace with regional and global changes, focusing on the development of specialized academic and vocational skills. The approach involves intensive training in knowledge tailored to individual interests and aptitudes, fostering human development through problem-based or project-based learning both in educational institutions and workplaces. The aim is to cultivate critical thinking, ethical values, and high standards of professional conduct, alongside leadership skills. Thus, the development of vocational education in Thailand is geared towards equipping learners with 21st-century skills, ensuring promising futures, and enhancing employability.

However, Thailand faces a mismatch between education levels and labor market needs. Despite a high production rate of bachelor's degree graduates, the labor market demands more vocationally trained workers. The shortage of skilled professionals in specific vocational fields fails to meet the needs of the job market effectively. Additionally, the production of graduates capable of developing innovations through STEM education (Science, Technology, Engineering, and Mathematics) remains insufficient, leading to an inability to satisfy the demand in sectors such as industry, agriculture, and services.

The production of labor in Thailand reveals that the skills of workers often do not align with employers' expectations. Although the dual vocational education system, which combines

practical training in workplaces with theoretical learning, enhances career competencies and increases job opportunities for students, the number of students choosing vocational education remains lower compared to those pursuing general education at the upper secondary level.

Thailand has taken steps to address the aforementioned issues by implementing the following measures:

- 1. **Development of Competency-Based Curriculum**: The curriculum has been revised to emphasize intensive skills training combined with hands-on experience in workplaces. This approach aims to better prepare graduates for employment.
- 2. Enhancement of Teacher Competencies: Efforts have been made to upgrade teachers' knowledge and skills to keep pace with technological advancements in various vocational fields. This includes improving their ability to teach both in the classroom and through practical training in workplaces. Additionally, creating professional development opportunities for teachers and building a network of vocational educators are intended to enhance teaching effectiveness and better prepare students.
- 3. Enhancement of Institutional Readiness: Efforts have been made to modernize and adequately equip training tools and facilities. This includes the development of simulation systems to provide pre-training or pre-vocational experience. Additionally, there is a focus on fostering positive awareness and attitudes towards vocational education to emphasize the importance of this level of education.

In 2024, the Ministry of Education in Thailand has outlined the following agenda for the development of vocational education:

- 1. **Promotion of Vocational Learning Anytime, Anywhere**: Develop platforms and educational media for vocational education to expand access opportunities and facilitate learning at any time and place.
- 2. **Development of Professional Skills**: Reduce the burden on students and parents by enhancing professional skills and competencies (up-skilling, re-skilling), establishing professional standards assessment systems, developing specific vocational certificate curricula, and promoting income opportunities during studies to ensure employment upon graduation (learn to earn)
- 3. Enhancement of High-Competency Vocational Education: Expand and elevate the dual education system, strengthen cooperation with the private sector, improve the quality and life skills of vocational students across all dimensions, promote active learning, and support innovation, research, and invention.
- 4. **Development of Education Level Comparison Systems and Vocational Credit Repository**: Improve and update curricula, develop assessment systems, establish credit repositories, set up provincial credit transfer centers, and promote dual education curricula management.
- 5. **Development of Language Skills for Education and Employment**: Enhance language proficiency to support educational and occupational needs.

- 6. **Creation of Community Craftsmen**: Establish one community skills center per vocational college, develop craft skills, create supplementary employment opportunities, and develop related applications.
- 7. **Improvement of Personnel Management Efficiency**: Address issues of teacher debt and shortages, and resolve the shortage of vocational education instructors.
- 8. Enhancement of the Image of Modern Vocational Education: Create safe and happy vocational education institutions, improve public relations and organizational communication, and promote the soft power of vocational education.

3.2 Development and Advancement of Higher Education in Thailand

Thailand emphasizes the production of graduates, both within and beyond traditional age groups, who can thrive and adapt in a world characterized by complexity and uncertainty. The country focuses on advancing knowledge and innovation in line with global changes, providing academic services that benefit communities and society, and disseminating scholarly knowledge. This includes promoting the conservation and restoration of natural resources and the environment, as well as nurturing local and national arts and culture.

The Ministry of Higher Education, Science, Research, and Innovation is dedicated to producing and developing a workforce that meets the country's needs. The focus is on cultivating appropriate skills among students to develop them into highly capable entrepreneurs. This includes enhancing skills and abilities to address global challenges, ensuring that Thailand's higher education system can excel on the international stage. Additionally, the ministry promotes collaboration with industry to produce graduates who align with the evolving global demands, thereby creating a workforce that is competitive on a global scale. The ministry also encourages national higher education institutions to conduct research and development that addresses the country's growth needs, such as clean energy, renewable energy, green economy, artificial intelligence, modern medical centers, and digital technology, all contributing to the nation's economic and social development.

In Thailand, higher education has been continuously evolving. In 2018, the Ministry of Education announced new higher education standards aimed at aligning with the current educational context and Sustainable Development Goals (SDGs). These standards focus on five key areas: student outcomes, research and innovation, academic service to society, arts and culture, and management. The goal is to elevate the quality of education and meet societal needs, with the Office of the Higher Education Commission (OHEC) playing a central role in implementing these standards. The Long-Term Higher Education Plan (2018-2037) includes efforts to ensure equitable access to higher education and emphasizes lifelong learning (LLL). It also highlights the importance of addressing the needs of all genders and vulnerable groups to create equal educational opportunities.

In 2019, the Office of the Higher Education Commission merged with the Ministry of Science and Technology (MOST), the National Research Council of Thailand (NRCT), and the Thailand Research Fund (TRF) to form the Ministry of Higher Education, Science, Research, and Innovation (MHESI). This new ministry plays a crucial role in advancing the country according to the Sustainable Development Goals (SDGs). It has updated higher education standards and quality assurance in accordance with the Higher Education Act of 2019, including defining learning outcomes and revising curriculum standards at various levels.

The Ministry of Higher Education, Science, Research, and Innovation has developed the Higher Education Development Plan (2021-2027) to enhance the capabilities of Thai people and align with UNESCO's Education for Sustainable Development (ESD) framework. This includes creating the Thai MOOC platform to support lifelong learning and increase access to free online education. Additionally, significant projects such as the Higher Education Sandbox have been launched to develop educational programs that address the urgent needs of the country without being constrained by traditional curriculum standards.

Recently, the Ministry of Higher Education, Science, Research, and Innovation has launched several key projects to elevate higher education and align with the Sustainable Development Goals (SDGs), particularly focusing on producing high-quality, adaptable human resources for the current era. These projects include:

- New Generation Graduate Project: This initiative aims to produce graduates with high competency for the New Growth Engine industries under the Thailand 4.0 concept. The proposed curriculum integrates academic and professional knowledge, providing students with practical work experience to better prepare them for the labor market.
- Cooperative Education and Work-Integrated Learning (CWIE): This project promotes the integration of academic curricula with real-world work experience in collaboration with businesses. It helps ensure that graduates possess competencies that meet labor market demands and are equipped for future job positions.
- National Credit Bank Project: This initiative supports lifelong learning by allowing the transfer and accumulation of knowledge and experiences in various forms into a national credit bank. It enhances flexibility and access to education by enabling learners to accumulate credits for their educational achievements.
- **Reinventing Universities**: This initiative focuses on reforming higher education by establishing strategic clusters of institutions based on their capabilities and potential. The Thailand Cyber University (TCU) project aims to create an online education platform, Thai MOOCs, to disseminate knowledge widely to the public. Despite progress in various areas, challenges remain in aligning graduate outputs with labor market needs, education quality, and equity of access. The impact of COVID-19 has compounded these issues, limiting educational and skill development opportunities. However, initiatives such as leveraging technology in teaching and adapting policies to address these challenges are expected to align higher education development with national needs and SDG 4 goals in the long term.
- **Reforming Higher Education Admission Systems**: A plan is being developed to reform the university admission process to reduce disparities in higher education access. The focus is on supporting underprivileged and disadvantaged populations, as well as promoting the development of learners' competencies and the recognition of prior experiences and knowledge.
- Research and Innovation Reform Plan: Thailand Science, Research, and Innovation Promotion (TSRI), in collaboration with higher education institutions and relevant agencies, has drafted a plan to reform the research and innovation system in higher education institutions. The goal is to support Thailand's sustainable development beyond the middle-income trap within 20 years. This plan aims to enhance innovation capabilities among entrepreneurs and communities, facilitate the use of innovation to improve operations, and

ensure research and innovation align with the country's economic and social development needs.

Goal 4.4: Increase the number of youth and adults with relevant skills, including technical and vocational skills, for employment, decent work, and entrepreneurship by 2030.

In Thailand, the development of crucial skills for both youth and adults is continuously supported by both the government and the private sector. Investments are made in training and educational programs to enhance technical and vocational skills, with the aim of increasing the number of individuals who possess valuable work skills and become successful entrepreneurs. The government and private sector have jointly established clear skill development strategies to meet labor market needs and promote sustainable economic and social growth.

The Ministry of Education places great importance on ongoing skill and educational development to adapt to labor market changes and create sustainable economic opportunities. The government and private sector collaborate to organize projects and training programs focused on developing specialized skills, such as in information technology, manufacturing, and services, to meet the diverse needs of the labor market. Additionally, support is provided to entrepreneurs through training and consulting on business management, innovation development, and marketing, helping them to build successful and competitive businesses.

Furthermore, **a system for academic and life goal coaching** has been implemented, involving the development and updating of curricula and learning processes to keep pace with global changes. The focus is on developing students at all educational levels with skills necessary for life and curricula that align with their interests and needs. This ensures that students can earn income while studying and secure jobs that match labor market demands upon graduation. Guidance systems are available from early childhood through secondary education to help students discover their preferred learning paths and life goals, which can be adjusted throughout their education. Additionally, a system for skill certification has been established, allowing students to gain additional qualifications and use accumulated credits to compare with educational qualifications.

Educational policies also provide opportunities for vocational students to earn income while studying and include systems for comparing or transferring learning results, skills, knowledge, and experiences across different institutions and systems, including international ones.

Moreover, the **National Credit Bank** has been established to support lifelong learning, enhance flexibility in accessing education, and enable individuals to accumulate credits from knowledge and experiences acquired throughout their lives.

Thailand has developed human resources according to the National Qualifications Framework, a crucial mechanism for improving and developing the workforce to meet both domestic and international labor market demands. This initiative focuses on linking educational systems with labor market standards and promoting lifelong learning opportunities through comprehensive plans and projects aimed at effectively connecting education with the labor market.

One significant project is the implementation of **the National Qualifications Framework** (**NQF**) **plan**, which covers the period from 2019 to 2022 and was approved by the Cabinet on October 20, 2022. This plan focuses on developing and implementing the NQF to effectively link education and employment, ensuring that graduates and the workforce are prepared for a competitive labor market.

Thailand has also joined the **ASEAN Qualifications Reference Framework (AQRF)**, which allows Thailand to compare and link its National Qualifications Framework with those of other ASEAN member countries. Participation in this framework not only enhances international connectivity but also promotes labor mobility within the ASEAN region, increasing opportunities for work and learning on a global scale.

However, the rapid changes in technology and the world of work present significant challenges in achieving educational goals. Improving methods and measures to adapt to these changes is essential. Current efforts are still limited to urgently needed occupations, which may not fully address the need for competency development in other fields. Therefore, creating partnerships with private sector entities to collaboratively develop and promote competencies in various occupations is crucial for ensuring that human resource development effectively meets labor market demands and adapts to changes in the world of work.

Goal 4.5: Achieve Gender Equality and Ensure Inclusive Education for All by 2030

Addressing gender inequality in education and ensuring access for vulnerable groups to education and vocational training in Thailand is one of the important goals of sustainable development, particularly Goal 4, which is committed to providing quality and equitable education for everyone by 2030. Thailand has undertaken various measures to achieve this goal, and the outcomes of these actions can be summarized as follows:

Thailand has developed policies and laws that support gender equality and access to education for vulnerable groups continuously. This includes the National Education Act and policies for individuals with disabilities, reflecting efforts to organize the education system to meet the needs of all groups. Additionally, there are policies supporting education for ethnic minorities and indigenous peoples, which help more children from these groups access education.

Training teachers to have the knowledge and skills to teach and support vulnerable groups is another important aspect. This training focuses on developing teachers' skills in using technology to assist students with disabilities, as well as improving their ability to communicate with children from indigenous and ethnic minority groups. Having trained teachers ensures that education can effectively address the specific needs of each student.

In addition, the use of technology in education is an important strategy for reducing barriers to accessing education. By utilizing online learning resources and applications designed for learning, such as creating online educational platforms that are accessible anytime and anywhere, children with location or resource limitations can study more conveniently. Financial support, such as scholarships for vulnerable children, also plays a crucial role in reducing disparities. In 2022, the Ministry of Education provided over 50,000 scholarships, which helped alleviate financial burdens and enabled children from impoverished families to continue their education.

Thailand has also collaborated with international organizations, private organizations, and communities to develop education and vocational training for vulnerable groups. Partnerships with organizations such as UNESCO and UNICEF have supported projects that help develop and promote education and vocational training for disabled children and children from ethnic groups.

Results from educational initiatives demonstrate tangible progress. Data from the National Statistical Office in 2022 indicated that the enrollment rate for girls in primary education was 98%, while for boys it was 96%, reflecting a reduction in the gender gap in education access.

Reports from the Office of the Basic Education Commission (OBEC) showed that in the same year, 80,000 disabled children received education within mainstream schools. The provision of over 50,000 scholarships for children from impoverished families also supports their continued education.

Thailand's efforts to address gender disparities in education and ensure equitable access to education and vocational training for vulnerable groups demonstrate significant success and a serious commitment to achieving sustainable development goals. The development of policies and laws, teacher training, use of technology, financial support, and organizational collaboration are key factors enabling Thailand to make progress in creating equal opportunities for education and vocational training for all.

Goal 4.6: Ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy by 2030.

In Thailand, achieving literacy and numeracy for all youth and a substantial number of adults is a key component of the country's education development efforts. To meet this goal by 2030, Thailand has implemented several strategies and key projects, including:

Thailand's education development focuses on establishing high educational standards, particularly in literacy and mathematics, to ensure that everyone has access to the basic knowledge necessary for sustainable living and development.

Policy: Thailand has implemented curricula that emphasize educational standards, with the aim of ensuring that all individuals can read, write, and calculate from primary grades 1 to 3. Educational reform policies and literacy promotion are ongoing and well-supported. These policies focus on enhancing reading and writing skills among children and the general public, which are critical for developing basic knowledge.

Curriculum: Thai language and mathematics are incorporated into the basic education curriculum according to national standards. This ensures that primary and secondary education adheres to various indicators, including instructional time and learning outcomes. Additionally, there are curricula for non-formal education that are equivalent to formal school standards, ensuring that non-formal education is of comparable quality and standard to formal schooling.

Teaching Management: Both formal and non-formal education systems follow principles and teaching methods recommended by the Ministry of Education's basic education curriculum. This approach aims to make teaching and learning effective and responsive to students' educational needs.

Teacher Development: Teachers are developed according to the professional development system established by the Office of the Basic Education Commission. This system responds to the needs of educational institutions, helping teachers adapt to educational requirements and enhance their teaching skills effectively.

Monitoring and Evaluation: Literacy and numeracy are assessed through standardized tests, including central examinations for Grade 3 and national knowledge assessments at the end of primary school (Grade 6) and secondary school (Grades 3 and 6). The National Institute of Educational Testing Service (NIETS) administers these tests, which include Thai language and mathematics as mandatory subjects.

Community Learning Centers: The Community Learning Centers of the Department of Learning Encouragement play a crucial role in enhancing literacy and numeracy in Thailand.

These centers, located in every community nationwide, provide accessible education and training for individuals of all ages. They address local educational needs and help develop essential skills for effective living.

Programs: Community Learning Centers offer a variety of educational and training programs to support lifelong learning. They focus on developing literacy and numeracy skills for both children and adults. Providing education tailored to specific needs helps individuals improve skills essential for daily life and economic and social development.

Lifelong Learning Centers: These centers are also pivotal in lifelong learning. Through training and various activities, they contribute significantly to achieving educational goals, ensuring that a large number of youth and adults attain literacy and numeracy by 2030. This reflects Thailand's ongoing efforts to enhance educational quality and reduce educational disparities.

Current Situation: Thailand has a relatively high and continuously growing literacy rate. In 2021, the adult literacy rate (aged 15 and above) was 94.1%, up from approximately 93.77% in 2020. This data reflects the success of the country's educational development and human resource enhancement efforts, with a strong focus on improving the quality of life for all citizens.

Goal 4.7: Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including education for sustainable development, sustainable lifestyles, human rights, gender equality, a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and culture's contribution to sustainable development by 2030.

In Thailand, the Ministry of Education has continuously worked to promote education that supports sustainable development. The focus is on providing knowledge and skills in several key dimensions, such as sustainable development, sustainable lifestyles, human rights, gender equality, a culture of peace, non-violence, global citizenship, and celebrating cultural diversity. Additionally, curricula have been developed to align with these goals as follows:

- 1. Improvement of Learning Standards: In 2017, the Ministry of Education revised the learning standards and indicators for the subjects of Mathematics, Science, and Geography, as well as Social Studies, Religion, and Culture. This revision aimed to ensure that basic education addresses changes in economic, social, cultural, environmental, and scientific and technological advancements. The goal of these improvements is to develop the national potential, enhance the country's competitiveness, and elevate the quality of education to international standards. This aligns with Thailand 4.0 policies and the 21st-century global context. These developments are intended to equip learners with competitive skills and the ability to thrive creatively in the global community, in accordance with the philosophy of sufficiency economy.
- 2. Curriculum Management Structure: On December 19, 2022, the Ministry of Education announced the management of the curriculum structure for educational institutions, which covers 8 learning areas and 1 basic subject in history. This announcement includes guidelines for teaching and learning to ensure that students take pride in their national identity, use historical methods to systematically analyze events, and understand human life and social coexistence. It also emphasizes adapting to changes over time and various factors, and practicing good citizenship and ethical behavior.

3. Teaching According to the Core Curriculum: Educational institutions have organized teaching on key topics such as global citizenship education, education for sustainable development, and gender equality according to the Basic Education Core Curriculum B.E. 2551 (2008). Global citizenship education and sustainable development are included in the citizenship and geography areas of the Social Studies, Religion, and Culture learning area. Gender equality is covered under Health Education and Physical Education, as well as in the Social Studies, Religion, and Culture learning area.

Additionally, institutions have integrated these essential topics into the curriculum through core subjects, elective subjects, or student development activities, along with extracurricular activities through various projects. Examples include organizing SDGs student leader camps and training teachers to integrate SDGs topics into their subjects. This approach ensures that education in Thailand can address the Sustainable Development Goals and contribute to creating a high-quality and sustainable society

In private schools that follow the Basic Education Core Curriculum B.E. 2551 (2008), content related to civic responsibilities is included in the Social Studies, Religion, and Culture learning area. Additionally, the Office of the Private Education Commission allocates a budget to support basic education expenses for private schools that receive support. This funding is used for teaching and student development activities to enable schools to organize comprehensive learning activities such as moral and ethical activities, scouting, Red Cross youth programs, and community service.

The Ministry of Education's efforts to promote the achievement of SDG 4.7 involve several key projects and activities.

- 1. **Student Leader Empowerment Program:** Various projects have been implemented, such as enhancing student leaders' potential to become global citizens, developing innovations in management aligned with Sustainable Development Goals (SDGs), and training leading instructors in administration. These projects aim to integrate SDGs into classrooms, schools, and educational service areas, while driving tangible results within their respective contexts.
- 2. **Promotion of Nationalism, Religion, and the Monarchy:** The Office of the Private Education Commission has organized programs to build knowledge systems and instill the values of nationalism, religion, and the Thai monarchy in private schools. This is achieved through training programs for administrators at all levels of private schools. The program has extended its impact to teachers, staff, and students in 2,640 schools, contributing to the strengthening of the nation.

The progress towards achieving Goal 4.7 is detailed in the following table.

Year	Projects/Activities
2018	 Citizen Development Camp: Focused on enhancing the potential of Thai citizens in the new era. Training for Teachers at Private Islamic Schools: Provided training in adapting teaching methods to foster global citizens in southern border provinces.

Table 12: Projects and Activities Towards Achieving Goal 4.7 by Year

	3. "IT for Teacher" Project: Aimed at developing IT skills for teachers,	
	with 654 teachers participating in the training.	
2021	1. Training on "Promoting Political Culture and Democratic Lifestyle	
	in Private Schools": Covered political culture, democracy, promoting a	
	democratic lifestyle, and youth political participation. This training	
	included political teaching and activities, with 400 teachers from 110	
	schools participating.	
	2. Youth Volunteer Leadership Camp: Aimed to foster unity and instill	
	values of patriotism, religion, and monarchy through volunteer activities,	
	with 260 students from schools in 5 southern border provinces	
	participating.	
2022	1. National Unity and Reconciliation Camp: Utilized scouting methods for	
	high school students to promote love and unity in society, with 607	
	students from 60 schools participating.	
	2. Training for Youth Volunteer Leaders: Focused on high school students	
	in 5 southern border provinces, with 608 students from 116 schools	
	participating.	

These efforts reflect a commitment to promoting education aligned with the Sustainable Development Goals (SDGs), particularly Goal 4.7, which aims to ensure that education and development activities lead to the creation of responsible and high-quality global citizens.

Goal 4.a: Create and upgrade educational facilities, as well as tools and equipment that are sensitive to children, persons with disabilities, and gender considerations, and provide a safe, non-violent, inclusive, and effective learning environment.

Ministry of Education Thailand's efforts in ensuring the quality of educational equipment and safety in schools cover several important dimensions, which can be summarized as follows:

1. **Policies and Regulations on Educational Equipment and Tools:** The Ministry of Education has established policies and regulations to ensure the quality of educational equipment and tools at the basic education level, aiming for effective and equitable management of educational resources. However, implementation in some areas still faces challenges, particularly in schools with budget and resource constraints. This affects the availability of quality educational equipment.

In terms of the curriculum, the National Core Curriculum provides guidelines for managing educational equipment and tools to support effective curriculum administration. Despite this, real-world implementation encounters challenges, especially in remote areas lacking standardized equipment.

1.1 Teaching Management and Teacher Development:

Small schools or those in remote areas often face challenges with insufficient standardized equipment due to the limitations of funding, which is provided per student but does not meet the demand for educational resources adequately. Teacher development typically emphasizes Information and Communication Technology (ICT) skills over other educational media and equipment, which may impact the use of diverse and appropriate teaching materials that meet students' needs. Teacher development should focus on utilizing educational media to enhance teaching effectiveness and learning outcomes.

1.2 Monitoring and Evaluation

Monitoring the procurement of educational equipment and tools often focuses more on the purchasing process, overseen by the Office of the Auditor General (OAG), rather than on evaluating their actual benefits to teachers and students. There should be a greater emphasis on tracking how effectively the equipment is used to ensure that it truly meets the needs of users in the classroom. Effective management should include evaluations that focus on outcomes and real benefits, contributing to the improvement of educational quality.

2. Safety in Educational Institutions

Establishment of the Ministry of Education Safety Center: Initiated in 2022 to ensure safety in the management of teaching and learning. The center has established measures to prevent violence, accidents, rights violations, and impacts on physical and mental health. The Safety Center includes 47,077 units, comprising students, teachers, and educational personnel totaling 1,112,439 individuals. Additionally, information technology systems are utilized to enhance the convenience and speed of safety management.

3. Quality School Enhancement

"Quality School" Project: This initiative aims to develop and elevate the quality of education through a community-based approach. A total of 349 schools are participating, including 183 primary schools, 77 secondary schools, and 89 stand-alone quality schools.

4. **Inclusive Education Management**: Primary and secondary schools implement inclusive education both in terms of grade levels and subjects to increase access to quality education opportunities.

5. Budget Support:

Educational Support: Development and support for education projects, including improving classroom media quality, covering student travel expenses, and hiring teachers for English and Chinese language subjects.

6. **Infrastructure Development**: Construction and renovation of school buildings, libraries, cafeterias, restrooms, and the creation of teacher housing communities.

Goal 4.b: Increase the number of scholarships globally for developing countries, especially Least Developed Countries (LDCs), Small Island Developing States (SIDS), and countries in Africa, to pursue higher education, including vocational training and programs in information and communication technology (ICT), technical fields, engineering, and science, in developed and other developing countries by 2030.

Thailand places high importance on international education with policies that emphasize supporting scholarships and training for personnel from developing and least-developed countries. This is achieved through collaboration with international organizations such as the United Nations (UN) and UNESCO. These efforts reflect Thailand's dedication to promoting high-quality global education. The policies focus on specialized programs where Thailand excels, particularly in Royal Initiatives and the Philosophy of Sufficiency Economy. These programs are designed to enhance knowledge and skills for effective sustainable development.

The teaching and learning management in this program covers a range of training formats, including short-term, medium-term, and long-term training, as well as undergraduate, master's, and doctoral studies. The focus is on developing the capabilities and skills of personnel from various countries through high-quality education and training.

Regarding teacher development, the Ministry of Foreign Affairs and the Ministry of Education play a crucial role in enhancing the capabilities of teachers and faculty involved with international students. This includes training and support to effectively manage students from diverse cultural and educational backgrounds. Developing these teachers ensures high-quality instruction and better responsiveness to the needs of students.

Monitoring and evaluation are crucial components of the project's operations. The funding agencies conduct both individual and project-level monitoring and evaluation to ensure that the goals of scholarships and training are achieved effectively. This monitoring helps maintain transparency in fund and training management and allows for adjustments based on the results obtained.

Overall, Thailand's efforts in supporting international education through scholarships, training, and teacher development demonstrate a commitment to promoting education and international cooperation. This contributes to global sustainable development and creates new opportunities for personnel and students from various countries.

Goal 4.c: Increase the number of qualified teachers, including through international cooperation in teacher training in developing countries, especially least developed countries and small island developing states, by 2030

To increase the number of qualified teachers, the Teacher Council Secretariat has launched a program through the Teacher Development Institute aimed at developing individuals who were previously exempt from holding a teaching license. This initiative seeks to ensure that these individuals meet the professional knowledge standards required for obtaining a teaching license, applicable to both Thai and foreign nationals. The program includes a comprehensive training curriculum consisting of seven modules: 1) Global and Social Context Changes, 2) Developmental Psychology and Educational Psychology, 3) Subject Content and Digital Technology, 4) Assessment and Evaluation of Learning, 5) Use of Thai and English for Communication, 6) Design and Implementation of Quality Assurance in Education, and 7) Teacher Professionalism and Ethical Standards.

Since 2019, the Teacher Council Secretariat has been developing teacher professional standards to align with national educational changes and directions. This was achieved by issuing the Teacher Council Regulation (No.4) B.E.2562, which emphasizes a competency-based approach. Higher education institutions seeking accreditation from the Teacher Council must update their curricula to align with the defined competencies. Graduates are required to undergo competency tests and evaluations, which involve new test frameworks and assessment criteria reflecting the updated standards. As of April 10, 2023, a total of 7,774 individuals have passed the competency tests and evaluations, and 5,939 of them have received teaching licenses.

In 2022, a project was launched to enhance teachers and educational personnel through Fundamental AL Training, utilizing the Active Learning process. The initiative aimed to develop 73,045 educators by focusing on five key modules: shifting paradigms and identifying competencies, designing learning activities, creating innovative learning materials, assessing and evaluating learner competencies, and providing supervision and support. The training was implemented through educational service area offices, which served as the core base for these development efforts.

Chapter 4:

The Impact of COVID-19 on Progress towards SDG 4

1. Impact of COVID-19 on Education in Thailand

The COVID-19 pandemic has not only disrupted the global economy but has also significantly impacted educational equity, including in Thailand. The pandemic affected both the quantity and quality of education, especially for students from economically disadvantaged backgrounds and those living in remote areas. In 2020, the Educational Equity Fund monitored educational disparities among target groups, focusing on students lacking financial resources, particularly those from households in the lowest 10-15% of the economic spectrum, referred to as "special needs students" (household income below 1,500 baht per person per month). Analysis of the impact of COVID-19 revealed a continued increase in the number of special needs students. In the latest semester (Semester 2/2020), the number of special needs students reached 1.17 million. Families of impoverished children faced disproportionately high educational expenses compared to their income, which were four times higher than those of wealthier families. As a result, many children had to drop out of the education system or faced the risk of doing so to help alleviate their family's financial burden by working.

The COVID-19 pandemic has significantly impacted the education system in Thailand. All schools and educational institutions had to adhere to measures announced by the government and the Ministry of Education to prevent the spread of the virus. This included the nationwide state of emergency declared under the Emergency Decree on Public Administration in Emergency Situations, B.E. 2548 (2005). The main measures involved social distancing and prohibiting the use of school facilities for teaching, exams, or large gatherings. Consequently, schools had to adopt alternative teaching methods, such as distance learning through electronic media. For schools that were able to operate, teaching methods included On Site (in-person learning), On Air (learning via radio or television), Online (internet-based learning), On Hand (learning through materials sent home), and On Demand (learning as needed). On Site learning required evaluation based on Thai Stop Covid+ (TSC+) criteria and approval from the Provincial Communicable Disease Committee. Schools and educational institutions had to strictly follow the Ministry of Public Health's guidelines to ensure the safety of students and staff.

The COVID-19 pandemic forced educational institutions to adapt their teaching methods to fit the new circumstances, inevitably impacting students and parents in terms of both education and daily life. Although various forms of distance learning were implemented to replace traditional classroom teaching, the effectiveness of remote learning could not match that of inperson instruction and potentially exacerbated existing inequalities. This situation may lead some students, particularly those at risk or from economically disadvantaged backgrounds, to decide not to continue their education. Consequently, there is a risk that these vulnerable groups, especially those from extremely low-income families, may drop out of the education system altogether.

2. Impact of the Pandemic on Access to Education, Learning Outcomes, and Student Wellbeing

2.1 Challenges and Impacts on Education Management in Thailand

The COVID-19 pandemic has caused severe disruptions to education in Thailand and globally, affecting access to education, learning outcomes, and student well-being. The nationwide closure of schools and the shift to distance learning have exacerbated existing educational inequalities. Students from disadvantaged families, particularly in rural areas, have faced numerous challenges due to limited access to digital tools and the internet. This digital divide has led to significant learning losses in critical subjects such as mathematics and reading, which are essential indicators under SDG 4.

Furthermore, the impact on student well-being has been equally severe. The sudden changes brought about by the COVID-19 situation forced learners to adapt to new learning schedules and methods, requiring them to study at home or through remote and online platforms. It was found that students from economically disadvantaged families, lacking access to essential equipment such as computers, smartphones, and reliable internet, faced direct negative impacts. Extended periods of distance or online learning throughout the pandemic led to heightened stress and anxiety among students across all grade levels.

During the lockdown period, students experienced increased anxiety and stress, alongside learning loss, which refers to the loss of acquired knowledge and skills that should have been appropriately developed for their age. The issue of learning loss during COVID-19 significantly impacted children, particularly those in early childhood and primary education, who require interactive learning experiences and social interactions in the classroom. Young children, in particular, were not prepared for extended screen time and needed physical learning experiences, making remote learning ineffective and unsuitable for them. Research conducted by the University of Thai Chamber of Commerce in collaboration with the Office of the Basic Education Commission (OBEC) revealed that academic learning and memory retention for early childhood children decreased to only 0.86% and 2.2%, respectively, compared to a baseline of 100% when attending school normally.

Additionally, students with special needs were also significantly impacted by the COVID-19 pandemic. This group of learners requires close attention and care from parents and caregivers due to their tendency to exhibit regression behaviors such as defiance, anger, and resistance, or difficulties with communication and understanding abstract concepts. These students often need more time to comprehend and adapt, leading to gaps in their ability to protect themselves from infection. If these children are at home, their caregivers need to be extra cautious to avoid transmitting the virus to them. Furthermore, COVID-19 has adversely affected early childhood education, especially in nurseries and preschools. Young children, who cannot engage in online learning, had to stay at home with their parents, resulting in a noticeable decline in motor skills development.

It can be said that students who were studying during the years of the COVID-19 pandemic (2020-2021) might be considered a "lost generation" in Thailand's education system. This group was significantly impacted by the closure of schools during the pandemic and the abrupt shift in educational systems. The reduction in interactions between teachers and students, along with diminished opportunities for social skill development and extracurricular activities, has adversely affected their educational outcomes compared to pre-pandemic times. As a result, the

academic achievements of these students have decreased. Those receiving lower-quality education are likely to face challenges in earning potential and socio-economic status in the long term, with an increased risk of being affected by future economic crises.

2.2 Adaptation and Solutions to Educational Management Challenges in Thailand

The COVID-19 pandemic has served as a catalyst, compelling educational institutions to adopt various teaching and learning formats. The pandemic accelerated the use of diverse tools and technologies in education, leading to significant adaptations and the emergence of new technological and innovative models. These changes have enabled students to engage in self-directed learning through different formats, creating new models tailored to the context of various regions globally. For instance, Thailand witnessed a shift from the conventional education system to alternative and adaptive approaches, including the widespread implementation of remote learning innovations

Additionally, COVID-19 has acted as a catalyst, accelerating changes in industries and work environments. Many businesses began investing in digital technologies to create more flexible and convenient systems, such as using robots instead of human labor, IoT offices, digital cloud databases, and remote working platforms and tools. The pandemic has thus expedited the process of digitalization. Furthermore, it has reinforced the push towards sustainable development and environmental friendliness, integrating these principles into various industries' visions and operations. This has led to increased awareness of natural 'warning signs' and a greater focus on envisioning a safer and more secure future for society.

In response to the challenges posed by COVID-19, the Ministry of Education, through the Office of the Education Council, has implemented measures to address learning regression. These measures include designing new learning processes that align with changing contexts and learner needs. This involves revising school curricula, adapting assessment methods to be more flexible and diverse, integrating and linking learning experiences with students' daily lives, and promoting individualized learning. Hybrid learning approaches are being developed, along with the design and allocation of appropriate learning materials and the enhancement of learning resources. Additionally, there is a focus on empowering teachers and school administrators by improving teaching techniques to foster active learning, enhancing teachers' digital technology competencies, and redefining teachers' roles as facilitators or coaches for effective learning. Support includes establishing teacher development centers to improve educational quality at the school and district levels.

T Under the Ministry of Education's policy to "turn the current crisis into an opportunity for education reform," there has been a shift in educational management to align with future learning needs and transform education post-COVID-19. The Ministry recognizes the necessity for changes in the Thai education system and has thus outlined a flexible educational policy. This policy de-emphasizes traditional rote learning and instead focuses on essential subjects, encouraging self-directed learning (SDL) through engagement with the surrounding environment and community.

The Ministry of Education is also committed to transforming educational institutions into safe spaces for all learners. This includes enhancing safety systems and mechanisms to protect students, teachers, and educational staff from diseases, disasters, and various threats to ensure high-quality and effective education. Additionally, efforts are made to create environments that promote well-being and are environmentally friendly.

To build resilience and media literacy for new and next normal life, the Ministry aims to ensure Thailand's continued advancement and sustainable development. In support of learning promotion, the Education Equity Fund (EEF) has developed the 'Mobile Learning Kit,' designed to enhance academic, physical, emotional, social, and mental skills. This initiative establishes a foundation for self-directed learning, a critical skill for 21st-century students. The tools and ideas from this kit have been distributed to schools nationwide, leading to various adaptations and positive outcomes in facilitating learning across different locations and times.

The Ministry of Education has also promoted effective collaboration among schools, teachers, parents, communities, and all relevant stakeholders to enhance learning management. This includes developing a digital media repository for educational purposes and integrating educational technology, connecting essential information systems, and fostering a positive attitude towards learning and overall well-being, both physical and mental, of students. The ministry has focused on elevating the use of technology in education effectively, providing welfare, and boosting morale for teachers who are dedicated and committed to teaching. Additionally, systems and mechanisms have been established to ensure the safety and quality standards of schools.

Furthermore, there has been coordination with various agencies, such as collaborating with the Department of Health under the Ministry of Public Health to develop the Sandbox Safety Zone in School (SSS) guidelines. This initiative aims to establish safety measures for students, teachers, and school staff, reduce burdens on students and teachers, and adjust assessments and learning hours for essential issues.

3 Solutions for Reducing Dropout Rates

The Education Equity Fund (EEF) has collaborated with the Office of the Basic Education Commission, local government organizations, and the Border Patrol Police to survey and monitor data on special needs students, specifically those transitioning between educational stages: kindergarten level 3, grade 6 of primary school, and grade 3 of secondary school. These students received equity scholarships of 800 baht to support their educational expenses for the first semester of 2021, as they were at high risk of dropping out due to the impact of the COVID-19 pandemic.

The survey, which covered 294,454 students, revealed that 5,857 students initially indicated they would not continue their education. However, 1,740 of these students changed their decision and returned to school at the start of the academic year.

Among those who expressed a desire to continue their education, 240,341 students, or 86% of the group, were listed in the personal databases of various educational authorities, including the Office of the Basic Education Commission, local government organizations, the Border Patrol Police, the National Office of Buddhism, and the Office of the Private Education Commission. In contrast, 39,943 students, or 14%, were not found in these databases. Many of these students were in grade 3 of secondary school, the final year of compulsory education, and some chose to leave school to work and support their families due to poverty or economic constraints. This resulted in interrupted education and lost opportunities for further study and higher income, which could have helped lift their families out of poverty.

To address this issue, the Education Equity Fund developed the Information System for Equitable Education (iSEE). This system, researched and developed by the Institute for the Promotion of Equitable Education, is a comprehensive database designed to support and track

disadvantaged children and youth in Thailand. It enables the government to monitor and address educational disparities effectively.

4 Thailand Zero Dropout Initiative

In May 2024, the Ministry of Education launched the Thailand Zero Dropout initiative to address the issue of out-of-school children and youth, aiming to eliminate this problem and reduce educational disparities in Thailand. The initiative assigns relevant agencies to identify out-of-school children and youth, implementing measures for follow-up support and appropriate referrals. It also emphasizes flexible education and learning methods to ensure these individuals can achieve their full potential.

The program includes promoting private sector involvement in education through "Learn to Earn" opportunities, which provide students aged 15-18 with work skills and supplementary income while continuing their education.

Thailand has set a target to reintegrate 1,000,000 out-of-school children and youth back into the education system by the fiscal year 2027. In 2024, the government successfully assisted 20,000 children and youth across 25 provinces. The initiative plans to extend its coverage to all 77 provinces starting from 2025.

5. Lessons Learned from Remote Learning During the COVID-19 Pandemic

5.1 Remote Learning During the Pandemic

The COVID-19 pandemic has highlighted several key lessons regarding remote learning in Thailand. One significant lesson is the urgent need to improve digital infrastructure and educational resources to ensure equitable and comprehensive access to education for all demographic groups.

The shift to remote learning underscored the necessity for comprehensive teacher training in digital tools. Many educators faced challenges adapting to online teaching, emphasizing the importance of ongoing training to enhance digital skills and make remote learning more effective. Developing online learning platforms that support various learning styles and providing support for students who have dropped out of the education system, such as through blended learning approaches, will be crucial in expanding educational opportunities and reducing disparities in the future.

Remote learning during the pandemic served as a critical test for Thailand's education system, pushing it to develop adaptive teaching strategies that respond to rapidly changing and challenging circumstances. The experience demonstrated that education must be a flexible tool capable of addressing the demands and challenges of the digital era effectively. It also highlighted the need to reduce educational inequities and reintegrate students who have fallen out of the education system into learning processes.

5.2 Problems and Solutions for School Drop-Outs During COVID-19

During the COVID-19 pandemic, the issue of school drop-outs became a significant problem in Thailand. The closure of educational institutions and the shift to remote learning made it difficult for many students to access education consistently, particularly in remote areas and among populations with limited resources. Difficulties in accessing technology and internet connectivity led to many students being unable to participate in online learning, resulting in increased rates of drop-outs from the education system.

To address this issue, Thailand has taken several steps. These include creating accessible and comprehensive online learning platforms, providing financial support to alleviate the cost burden of technology, and developing special programs focused on assisting students who have dropped out of the education system. Offering free internet-based educational programs or blended learning is one of the crucial strategies to provide opportunities for students wishing to return to their studies. Building an effective support system that can promptly meet students' needs will help reduce drop-out rates and enhance educational opportunities for learners in the future.

5.3 Anywhere, Anytime Learning Policy

This crisis has created an opportunity to develop new learning models that emphasize community and family involvement. This approach integrates school teachers, parents, and community members to collaboratively develop new learning methods where everyone can act as a teacher for children anywhere, anytime. Establishing such connections between schools and parents helps children learn using their community as a base, incorporating community identity into learning projects, and making households part of the learning assessment process. Effective communication with parents about their new roles is essential to ensure this transition is smooth and effective.

Conclusion

In the aftermath of the COVID-19 pandemic, the education system in Thailand has undertaken numerous improvements and developments to address the emergency situation and new challenges. The focus has been on enhancing digital infrastructure to ensure widespread and equitable access to online education. This includes updating teaching methods to align with online learning, creating platforms that support various learning formats, and strengthening teachers' digital skills through training to enable effective instruction.

Additionally, support for students who have dropped out of the education system has been prioritized through the development of assistance and tracking systems to facilitate their return to learning. Flexible and case-specific learning designs have been implemented, such as vocational skills development and programs that allow students to learn while working. These measures aim to ensure continuous and adaptable education, effectively meeting the future needs of learners.

Chapter 5

Review of the National SDG 4 Framework/Strategies and Expected Implementation Guidelines

The threat posed by the COVID-19 pandemic has clearly revealed that the existing processes and practices widely used were insufficient to address new types of threats. The impact of COVID-19 forced the world to abruptly adapt to a "New Normal" era, requiring all countries to carefully reconsider their policy and strategic approaches, especially in the education sector. The goal of this adaptation is to enhance preparedness and position the country to advance confidently and securely into the new decade.

Thailand has made significant advancements in education by aligning human resource development with the national strategy (2018-2037) and the Sustainable Development Goal (SDG) 4. This aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. However, the damage caused by the closure of many schools during the COVID-19 pandemic has highlighted that improving the education system can no longer be deferred. Thailand must reassess its educational management to fit the new normal by adjusting educational processes, enhancing teacher knowledge, applying educational technology, and creating new capabilities to cope with changes. This is essential to achieving the SDG 4 targets and aligning with the Bangkok Declaration 2022 and national commitments to transform education. This chapter will also outline expected guidelines for achieving SDG 4 by 2030.

1. Driving the National Strategy into the New Era

The COVID-19 pandemic has significantly altered daily life, making adaptation to the new normal essential across all areas, including work, education, and daily living. The pandemic has severely impacted the economy, prompting the development and introduction of new innovations and technologies to address emerging challenges. This shift has also stimulated a reevaluation of education systems globally, aiming to enable individuals to adapt and develop skills that align with rapidly changing circumstances.

In Thailand, the COVID-19 outbreak has had widespread effects on the quality of education and exacerbated educational inequalities. The economic impacts of lockdowns have posed various challenges to the education system. School closures and the shift to online learning have disproportionately affected students lacking technological resources. Additionally, disparities in access to learning materials and family support have led to significant educational inequalities and a rapid expansion of learning opportunity gaps.

These impacts necessitate a review of Thailand's educational management strategies to adapt to the new normal. This involves adjusting educational processes, enhancing teacher knowledge, integrating educational technology, and creating new capabilities to address changes. The goal is to align with the Sustainable Development Goal 4 (SDG 4) and prepare students effectively for the upcoming decade. Key aspects include:

20-Year National Strategy: The strategy focuses on developing and enhancing human resources comprehensively in terms of physical, mental, and intellectual capacities. The COVID-19 impact underscores the need to modernize the education system to align with 21st-century requirements. This includes reforming education to be flexible, preparing learners for

change, updating teachers' roles, developing digital platforms, and promoting anytime, anywhere learning using technology.

National Education Plan 2017-2036: This plan aims to improve education quality to ensure equality and equity in educational access and to promote lifelong learning. It sets out guidelines for advancing education in Thailand in line with SDG 4.

Bangkok Statement 2022: Issued during the ministerial-level education conference in Thailand in 2022, this statement emphasizes the need for effective learning recovery for all, particularly for the most vulnerable groups, to help students catch up on lost learning. It calls for transforming education in the Asia-Pacific region, reviewing curricula and teaching processes to reflect evolving social and economic needs, and redefining the role of teachers as facilitators of learning and skill development. It also highlights the importance of developing a comprehensive digital education ecosystem, ensuring free and equitable online education access, and implementing high-quality e-learning programs to achieve inclusive and equitable education for all.

Framework of Cooperation for Sustainable Development, 2022-2026

The Thai government and the United Nations have agreed on a framework to develop human capital and enhance public access to education. This framework aligns with the UN's focus on improving accessibility, responsiveness, and quality of public services to transform Thailand. It aims to elevate the quality of education and lifelong learning, promote good employment opportunities, emphasize environmentally friendly education, early childhood development, and skills matching market demands. Key initiatives include expanding digital education platforms and electronic learning through improved infrastructure, digital equipment, teacher training, and digital citizenship skills development.

2. Guidelines for the Future of Education in Thailand

Thailand remains committed to developing human potential throughout life. This includes creating environments conducive to development and enhancing human capabilities, from the prenatal period to early childhood, through school-age and adolescence, and extending to the workforce and elderly.

The focus is on responding to the changes of the 21st century and the diverse human intelligences. Key areas of emphasis include modernizing curricula and learning processes, improving the quality and efficiency of teachers and educators, digital learning reforms, enhancing educational management and administration, early childhood development, vocational education, and increasing the country's competitiveness.

Additionally, efforts will be made to improve access to quality education for disadvantaged groups, manage formal, non-formal, and informal education systems, and promote lifelong learning and stakeholder participation. Quality education is central to achieving the Thai government's goal of transforming the economy and enhancing overall productivity. Therefore, creating an inclusive society where everyone benefits from development through education, sustainable development education, global citizenship education, and lifelong learning is crucial for a balanced society with the capacity to adapt quickly to crises and ongoing changes.

Approaches to Developing Education to Achieve SDG 4 Goals

1. Promoting Access to Quality Education Opportunities Equitably and in Accordance with International Education Development Goals

Thailand faces issues of educational inequality on several fronts, particularly those arising from economic disparities, which lead to many poor and disadvantaged children dropping out of the education system. This is reflected in the decreasing enrollment rates at higher levels of education. Problems include disparities between urban and rural schools, which are linked to other educational issues such as the quality of education. To elevate Thailand's educational competitiveness to international standards, it is essential to start with promoting equitable access to quality education opportunities that align with international education development goals. This approach is a crucial starting point for sustainably enhancing educational competitiveness.

In Thailand, educational development must focus on promoting equity and increasing educational opportunities for disadvantaged children and youth in remote areas. One of the main strategies to achieve this is mobilizing funds from all sectors to establish scholarship funds. These funds can help provide widespread educational opportunities for underprivileged children and reduce dropout rates. Improving the criteria and operational guidelines of educational funds to cover a broader target group, along with reducing loan conditions, will help ensure that underprivileged youth can more easily access financial resources for education.

Promoting education management for employment and income generation during studies can help disadvantaged and poor children earn supplementary income, thereby reducing the factors that lead to their dropout from the education system. Developing educational institutions in remote areas to be of high quality and diverse to meet the needs of youth in these areas will reduce issues related to costs and difficulties associated with traveling to study in distant locations.

Additionally, developing a career guidance system that can identify the needs and aptitudes of youth and recommend appropriate educational and career paths will help them study in fields they are skilled in and interested in, reducing the risk of dropping out of the education system. Promoting education for children with special needs, such as those with disabilities, will ensure that education is equitable and inclusive of all forms. Supporting out-of-school individuals to access the education system through the mechanisms of the Education Promotion Act, BE 2566 (2023), will provide opportunities for lifelong learning without limitations. Implementing these approaches will help the Thai education system effectively and fairly address the needs and challenges faced.

2. Developing Essential Skills According to International Standards to Adapt to the New Global Environment

The development of education in Thailand, aimed at preparing youth for the present and future, focuses on creating curricula that align with international standards and respond to changes in the new global environment. Educational curricula should emphasize the development of competencies and essential skills, including the use of Formative Assessment processes that support student development rather than solely evaluating students. This ongoing assessment will help make learning flexible and adaptable to students' needs.

Furthermore, Thailand emphasizes the improvement of learning methods that focus on analytical thinking and hands-on practice. Approaches such as Active Learning, Project-Based Learning, Problem-Based Learning, and STEM Education will help youth become familiar with

applying knowledge to solve real-life problems. Additionally, promoting a love for reading and developing skills in text analysis will open up new learning opportunities and enhance analytical thinking, paving the way for acquiring other essential future skills.

Teacher development is another crucial factor. It is essential to attract knowledgeable and dedicated individuals into the teaching profession and to develop teachers' expertise in their subjects to encourage students to think analytically and systematically. Reducing non-teaching duties, such as accounting and administrative tasks, will allow teachers more time to focus on delivering high-quality and effective instruction. Additionally, emphasizing the teaching profession, supporting access to various technologies, and providing training on how to use these technologies in teaching, as well as developing digital skills, will help improve student learning outcomes.

Thailand also aims to promote foreign language learning, particularly English, which is a global language. This effort is intended to enable learners to have limitless learning opportunities and to prepare them for new opportunities in education and employment in the future. Developing Ecosystems, Resources, and Integrating Educational Databases to Enhance the Country's Educational Competitiveness

3. Enhancing Educational Ecosystem and Integration of Data Systems to Boost National Competitiveness

Effective educational development in Thailand should focus on strengthening the role of provinces and groups of provinces in managing education at the regional level seriously. Increasing local involvement in educational management processes and mobilizing resources for educational development is crucial, as it helps the educational ecosystem align better with the specific contexts and needs of each area. By granting provinces and groups of provinces decision-making power over policies and budget allocation, educational development can be more efficient and better tailored to local needs.

Additionally, it is vital to improve regulations that hinder the use of educational budgets by local government organizations. This will ensure that educational institutions in each area can fully access the resources and budgets necessary for quality education. Budget allocation methods should prioritize small schools and schools in remote areas, which often face resource and budget shortages. Appropriate budget allocation will enable these schools to provide quality education and meet educational needs effectively.

Developing a comprehensive database system and statistical data management is a crucial factor. Defining clear criteria for educational data and collaborating with relevant agencies to collect accurate, timely, and comprehensive data on all significant indicators will aid in effective educational analysis and decision-making. Improving IT infrastructure, such as enhancing internet connectivity and providing adequate computer equipment, will maximize the efficiency of learning management and meet the learning needs of students comprehensively.

4. Transforming Education in the Digital Era

In the digital age, education needs to adapt swiftly to keep pace with rapid technological changes. This transformation should focus on integrating new technologies, such as AI, to analyze student behaviors and needs, as well as developing curricula that emphasize digital skills and tools. Such measures are vital to preparing students for a labor market that is continually evolving.

Moreover, it is essential to train students in critical thinking, time management, and the effective use of technology. Educators, too, must be equipped with the skills to use technology effectively in their teaching practices. Concurrently, the government should invest in infrastructure improvements, such as enhancing high-speed internet access and providing up-to-date learning tools. Developing digital applications and tools to facilitate efficient learning is also crucial. Addressing challenges related to equitable access to education and cybersecurity must be a continuous focus to ensure that Thailand's education system can meet the demands of the digital era effectively and sustainably.

5. Developing Educational Management Systems to Enhance Educational Efficiency to International Standards

To develop an effective educational management system in Thailand that can compete internationally, it is essential to clearly define the roles and responsibilities of agencies within the Ministry of Education, especially at the regional level. Promoting collaboration between different agencies, such as through knowledge and resource exchange, will enhance the efficiency of educational management and foster strong cooperation in comprehensive educational development.

Additionally, promoting good governance in education management is crucial. Establishing clear indicators will create transparency and accountability at all levels of operation, leading to more effective and successful outcomes. Supporting the private sector's involvement in setting educational policies and building strong relationships with employers in the labor market will help ensure that educational policy development is effective and meets labor market needs.

Decentralizing educational management to local governments and schools will better address the specific contexts and needs of each area, along with establishing clear accountability. Supporting local educational agencies in policy-making and educational development (bottomup approach) will ensure that educational development aligns with community needs and regional contexts.

Systematic annual monitoring and evaluation of action plans are essential. An effective monitoring system will allow for progress checks, strategy adjustments, and ensure that educational operations align with set goals and indicators.

In Thailand, educational development should focus on creating quality and equitable educational opportunities to reduce economic and geographic disparities, which are primary factors limiting educational opportunities for disadvantaged children and youth in remote areas. This issue is reflected in decreasing enrollment rates at higher education levels and the stark differences between urban and remote schools.

Conclusion

In Thailand, educational development focuses on creating quality and equitable educational opportunities to reduce disparities caused by economic and geographical differences. Key strategies include raising funds and improving educational funds to support disadvantaged youth, developing educational institutions in remote areas, and aligning curricula with international standards. Enhancing teacher quality and supporting lifelong learning are essential for elevating education to its highest quality and meeting societal needs.

Addressing global environmental changes requires developing necessary skills and using continuous formative assessment to ensure flexible learning. Implementing learning methods

that emphasize critical thinking and hands-on experience, such as Active Learning, Project-Based Learning, and STEM Education, will enable youth to effectively apply knowledge in real-life situations. Improving teacher expertise, reducing non-teaching workload, and promoting foreign language learning, especially English, will open new opportunities for education and future employment.

Enhancing the roles of provinces and groups of provinces in educational management is crucial. This includes increasing local agency involvement and efficiently mobilizing resources. Improving regulations that hinder budget expenditure will enable schools in remote areas and small schools to better access necessary resources. Developing accurate educational data systems will aid in effective analysis and decision-making, while upgrading IT infrastructure, such as improving internet connectivity and providing sufficient computing equipment, will boost educational competitiveness.

To develop an effective and globally competitive educational management system, it is necessary to clearly define the roles and responsibilities of agencies within the Ministry of Education. Promoting collaboration and knowledge exchange among agencies, establishing clear performance indicators for good governance, decentralizing educational management to local levels, and systematically monitoring and evaluating performance will ensure efficient educational management, meet community needs, and align with international standards.



Bureau of International Cooperation The Thai National Commission for UNESCO Office of the Permanent Secretary Ministry of Education 319 Ratchadamnoen Nok Rd, Dusit, Bangkok, 10300 THAILAND Tel.: +66 2281 0565 E-mail: thainatcom@sueksa.go.th www.bic.moe.go.th