

Ministry of Education Information Communications Technology (ICT) in Education and Training Policy 2022-2027



Contents

FORWARD	3
ACKNOWLEDGMENTS	4
DEFINITIONS	5
ABBREVIATIONS AND ACRONYMS	6
SECTION 1	7
OVERVIEW OF ICT IN EDUCATION AND TRAINING	7
RATIONALE FOR AN ICT IN EDUCATION POLICY.....	7
STRUCTURE OF THE POLICY.....	7
SECTION 2	9
VISION STATEMENT OF THE POLICY	9
PURPOSE AND GOALS OF THE POLICY	9
SCOPE AND TARGET OF THE POLICY.....	9
GUIDING PRINCIPLES AND VALUES	10
SECTION 3	11
3.1 IMPROVING INFRASTRUCTURE AND CONNECTIVITY	11
3.2 FACILITATING STUDENT-CENTRED TEACHING AND LEARNING.....	13
3.3 FACILITATING COST-EFFECTIVE ACCESS THROUGH OER AND OPEN LICENSING.....	15
3.3.1 <i>Open Educational Resources</i>	15
3.3.2 <i>Open Licensing</i>	15
3.4. ESTABLISH ICT IN EDUCATION PUBLIC-PRIVATE PARTNERSHIPS.....	16
3.5. COLLECTION, ADMINISTRATION, ANALYSIS & MANAGEMENT OF EDUCATION AND TRAINING DATA	17
3.6. CAPACITY BUILDING AND PROFESSIONAL DEVELOPMENT OF RELEVANT STAKEHOLDERS	17
3.7. EFFECTIVE AND CO-ORDINATED GOVERNANCE, IMPLEMENTATION AND ORGANISATIONAL ARRANGEMENTS	18
3.8. EFFECTIVE MONITORING & EVALUATION.....	19

Forward

The rapid rise in technology as a result of the Fourth Industrial Revolution (4IR) and the need to provide appropriate skills to update human resources for the digital economy, places emphasis on learners to be equipped with skills needed for the 21st century, especially, the developments in automation, artificial intelligence, internet of things (IOT), robotic and virtual realities, have significance on the way new generations of knowledge workers need to be prepared. On the other hand, the COVID-19 pandemic has forced education policy makers to innovate and adopt new strategies to embrace a digital education system.

Seychelles cannot afford to be left behind or to trail from the rest of the world. Government has a national plan to ensure the country is up-to-date with all the developments. It is setting the stage for a Digital Seychelles where the focus will be towards the development of a digital economy, a Fintech strategy, a payment modernization strategy and an e-ID platform with mobile functionality.

To realise the Government plan, the Ministry of Education will need to play a pivotal role to equip the its citizen with the required skills, competencies and values.

The above is well captured in the Strategic Plan of the Ministry of Education (2021-2024) which aims to support the integration of ICT and OER in teaching, learning and policy development. It also seeks to provide schools with appropriate ICT resources to support a modern learning culture. It provides a framework for the modernization of education including the use of digital technology.

It also emphasises on the establishment of eight strategic policy areas for coordinated and harmonised interventions. These will enable the necessary transformation in education and training to better contribute to the national goal of a knowledge-based digital economy within the context of the vision for raising aspirations and ensuring worthwhile learning outcomes.

Although much has been accomplished, we note that certain challenges remain. This policy reaffirms the commitments of government, through the Ministry of Education and its public and private partners, to continue to invest resources to ensure that its citizens can harness all the opportunities and to cope with the challenges emanating from a digital world.

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Minister for Education

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Definitions

Competence: Knowledge, skills, attitudes, and personal attributes combined with the underlying understanding to perform all or some the functions of an occupation or profession.

Education Management Information Systems (EMIS): Centralized computerised system designed to organised information related to education and training. The functions of EMIS include the collection, processing, publication, dissemination and rendering of information services on important parameters of education and training such as data related to student numbers, human resources, institutional assets, and student progression. The processed data provide diagnostic information to a centralised authority to facilitate effective planning, decision-making, implementation, monitoring and evaluation of the education and training system.

Education Portal: Web based technology that provides a number of education and training services and access to education and training resources. While it might act as a repository for curriculum resources and education news items, it can also offer more sophisticated services such as provision of an online platform for teaching and learning and also social network facilities.

Information & Communication Technologies (ICT): A diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information. These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony (including mobile phones) and other portable devices.

Learner- Centred Education and Training: Learner-Centred Education (also referred to as child-centred learning) is an approach to education and training focusing on the interests of the students, rather than those of others involved in the educational and training process, such as teachers and administrators. This approach contrasts with traditional education and training methodologies and focuses on each learner's interests, abilities, and learning needs, placing the teacher as a facilitator of learning.

Learning Areas: Dimensions of learning that are broader than subject contents and that contribute to a broad and general education and training, laying foundations for lifelong learning and specialised education and training.

Open Educational Resources: Open educational resources (OER) are learning, teaching and research materials in any format and medium that reside in the public domain or are under copyright that have been released under an open license, which permit no-cost access, re-use, re-purpose, adaptation, and redistribution by others.

Open license: Open license is a type of license that allows anyone to reuse, revise, remix and redistribute a work without the permission of the original copyright holder. The Creative Commons Attribution licensing framework has several different types of open licenses.

Policy: An official commitment of the authority to the vision, mission, principles, goals, and objectives expressed in a document which an organisation adopts for a given area and strategically intends to implement.

Strategy: The adopted course of action was considered necessary to define components of a policy. It is a specific way of combining institutions, time, staff, laws, regulations, procedures, etc. to achieve the policy components. It may be further detailed resulting in an implementation plan involving numerous objectives, time periods, resources, and outcomes.

UNESCO ICT Competency Framework for Teachers (CFT): A Framework intended to inform educational policy makers, teacher-educators, providers of professional learning and practicing teachers on the role of ICT in educational reform, as well as to assist Ministries of Education in developing national ICT competency standards for teachers.

Abbreviations and Acronyms

BYOD	Bring your own device
CC	Creative Commons
COL	Commonwealth of Learning
CPD	Continuous Professional Development
DES	Department of Education Services
DESD	Department of Education Sector Development
DICT	Department of Information and Communications Technology
EMIS	Education Management Information System
ICT	Information and Communications Technology
ICT CFT	ICT Competency Framework for Teachers
LMS	Learner Management System
MoE	Ministry of Education
NQA	National Qualifications Authority
OER	Open Education Resources
PPP	Private and Public Partnerships
SICTCFT	Seychelles ICT Competency Framework for Teachers
SIDOL	Seychelles Institute of Distance and Open Learning
SITE	Seychelles Institute of Teacher Education
SU	Seychelles University
UNESCO	United Nations Educational, Scientific and Cultural Organization

Section 1

Overview of ICT in Education and Training

The Ministry of Education and Training (MoE) is, and has for over a decade, committed to adopting technology to enhance education. The ministry espouses the benefits of technology to complement teaching & learning, institutional administration and continuing professional development. Since 2010, infrastructure has been laid to ensure secondary, and to a lesser extent primary education institutions, have access to computers and connectivity. Both in-service and pre-service educators have been exposed to ICT in Education training courses. The subject of IT has been added to the curriculum.

In 2014 the ministry published the first Seychelles ICT in Education and Training Policy (2012-2019) which took a progressive approach to encouraging ICT adoption among the education community. However, the effectiveness and impact of the ICT in Education policy and was minimal in the absence of a detailed implementation plan, responsibilities, and associated budget.

Consultations with stakeholders also revealed that the usage patterns among educators, students and the wider education community had changed from what was common in 2014, when the policy was adopted. The use of ICTs during the pandemic has become more ubiquitous and more applications for ICT are now envisaged. More individuals are beginning to pick up and use digital devices and connectivity. Consequently, it was decided to revise and update the 2014 policy.

Rationale for an ICT in Education Policy

The ICT in Education policy (2014-2019) has been appreciated by education stakeholders, but that implementation had limitations. Therefore, while developing a new policy for the five-year period 2022-2027, it was agreed that many 2014 policy elements should be preserved as they still resonate with contemporary needs and practices.

The developments in technology and the need to update human resources with appropriate skills for the knowledge economy demands that learners in Seychelles are equipped with skills needed for 21st century. Especially, the developments in automation, artificial intelligence and virtual realities have significance on the way new generations of knowledge workers need to be prepared.

The revised policy, therefore, has strong links to the original 2014 document but has been updated, revised, and extended to incorporate new developments within the ICT in Education sector. The revised policy is also accompanied by an implementation strategy document with clear governance structures, activities, and targets.

Structure of the Policy

This document sets out the Ministry of Education's vision, goals / objectives, and principles / values to provide strategic direction to the integration of ICT in education and training at all the stages recognised in the legal frameworks on education and training, and its institutionalisation at the level of the education sector.

It also establishes the following eight (8) strategic policy areas for coordinated and harmonised interventions, to enable the necessary transformation in education and training to better contribute to the national goal of a knowledge-based economy within the context of the vision for a knowledge-based society.

- Improving Infrastructure and Connectivity
- Facilitating Student-centred teaching and learning
- Facilitating Cost-effective Access through OER and Open Licensing
- Establishment of ICT in Education Public-Private Partnerships
- Collection, Administration, Analysis & Management of Education and Training Data

- Capacity Building and Professional Development of Relevant Stakeholders
- Effective and Co-ordinated Governance, Implementation and Organisational Arrangements
- Effective Monitoring and Evaluation

Section 2

Vision Statement of the Policy

The long-term vision for ICT in education policy is to:

- Provide leadership in the institutionalisation of ICT into all educational processes;
- Encourage through safe and affordable access to ICT learner-centred education in all learning areas and at all the stages of education and training;
- Promote lifelong learning and a digital educational and training culture amongst the education community and national and international partners;
- Utilize ICT to optimize human, physical and financial resources whilst still enhancing quality and improving efficiency of educational and training processes.

Purpose and Goals of the Policy

Guided by the context and the vision of ICT in education, the goals of the Policy are to:

- Provide the necessary framework to optimise the **coordination of diverse opportunities** for the process of integration of ICT in education and the institutionalisation of an ICT culture;
- Provide an agreed **enabling mechanism** where ICT in education interventions can be considered in a transparent, objective, and collaborative manner;
- Provide an agreed framework to **strengthen partnership and collaboration** amongst stakeholders attending to defined priority areas for action in the process of integration of ICT in education and the institutionalisation of an ICT culture;
- Provide an agreed framework to **enhance institutional capacity** and empower individuals to address the identified demands of the strategic priority areas for action in the process of integration of ICT in education and the institutionalisation of an ICT culture;
- Provide an agreed framework to **clarify the roles and responsibilities of key partners and stakeholders** in the process of integration of ICT in education and institutionalisation of an ICT culture;
- Enhance and **transform teaching and learning** by embracing student-centred approaches and lifelong learning using ICT;
- Encourage the **use of ICT in all learning areas**, where appropriate, and not only within the subject of ICT domain, and the development and demonstration of emerging digital skills;
- **Improve access to quality digital resources** by identifying, storing, and distributing relevant Open Education Resources with Creative Commons license;
- **Coordinate ICT in Education initiatives** to improve cost-effectiveness and efficiency;
- Take appropriate steps to **enhance access to ICT and connectivity** amongst all education and training stakeholders;
- **Streamline institutional administration and reporting** using ICT and the development and use of a centralised EMIS platform;
- Take appropriate steps to provide education and training stakeholders with professional development **opportunities to effectively use ICTs for teaching and learning**.

Scope and Target of the Policy

This policy has been designed to shape ICT in education initiatives over a five (5) year period, following its approval.

However, given the rapid developments within this sector the policy may be revised in the light of new advances before the end of this period.

The policy relates to all education stages that are coordinated under the Ministry of Education in accordance with the legal frameworks on education and training in Seychelles.

Guiding Principles and Values

The implementation of this Policy will be guided by the following principles / values.

Quality and Relevance: Interventions shall be characterised by the **highest standard of delivery** and relevance.

Openness & Learner Data Protection: Interventions shall seek to **reduce barriers to access to all** to ICT experiences for identified target audience while providing for adequate protection from the potential negative impact of such experiences. Ethical use of new ICTs, such as Artificial Intelligence shall be key to implementation of ICT in education and training.

Flexibility and Responsiveness: Interventions shall seek to promote **flexibility in the provision of ICT experiences** and seek to ensure that necessary services are dynamic and that they respond to the ever-changing needs of the target audience.

Audience Centeredness and Empowerment: Interventions shall seek to ensure that the identified **target audience remains the focus**, learning opportunities take place in the most enabling environment, and that the target audience have access to resources necessary to facilitate the learning experiences. It shall further seek to prepare the audience to develop responsible use of ICT in all instances.

Cost-Effectiveness and Sustainability: Interventions shall seek to promote **cost effective access to learning opportunities in ICT** and shall consider the long-term nature of diverse experiences needed and not be limited to project life cycle.

Efficiency: Interventions shall seek to ensure that the goals/objectives of the Policy are attained in the **most efficient manner** to optimize returns from investment in this area;

Professionalism: Decisions-makers at all levels of the institutional mechanism shall be characterized by **high standards of ethics, accountability, and transparency**.

Integrity: Decisions taken at all levels of institutional mechanism shall be in accordance with established criteria and shall demonstrate the **highest standard of fairness and honesty**.

Partnership & Collaboration: The interventions shall seek **strategic partnership and collaboration** where stakeholders are supportive to one another and leverage resources for action to bring about improvement in the learning environment and learning experience of ICT.

Relevance: While providing relevant and targeted interventions, consideration shall be given to **sensitivity, circumstances, and context** for improving learning experiences for target audience;

Participation & Ownership: **Stakeholder participation and engagement** shall be central to the process of implementation of the policy.

Access and Inclusivity: Interventions shall seek to ensure **diversity of quality access** without discrimination. ICT in education interventions will focus on supporting persons with disabilities.

Gender Equality: Implementation of the policy shall ensure that **gender equality is observed**. Recognising the difference in access to technology for teaching and learning amongst boys and girls, and men and women, the policy will focus on ensuring equality of access and support special measures.

Rationalisation and Coherence: Interventions shall seek to undertake **a coordinated and coherent engagement** to dimensions of ICT experiences.

Section 3

Strategic policy goals and statements

3.1 Improving Infrastructure and Connectivity

Through the Ministry of Education's (MoE) previous ICT in Education initiatives all primary and secondary schools provide students and staff with some access to computers and connectivity. Students doing ICT as a subject have access to at least one computer lab per school. Educators have access to a Ministry laptop scheme that offers cost effective plans to acquire personal computer equipment. Many schools also have a scheme where non-ICT subject teachers can access a local bank of roving digital devices to support technology mediated lessons.

Reliability of these services, and learner and educator access to ICT over and above learners studying the subject of ICT, however, remains a concern. Hence this policy calls for the optimal use, care, maintenance, timely replacement, and environmentally responsible disposal of obsolete ICT infrastructure. This policy seeks to encourage the development of cost-effective strategies to improve access to ICT through the following commitments:

- 3.1.1. Reliable connectivity and Internet access will be expanded and improved across the education system on an ongoing basis.
- 3.1.2. In collaboration with the Department of Information and Communication Technology (DICT) the MoE, will provide, and maintain, the appropriate cost-effective hosting infrastructure for key digital systems. This includes centralising the Education Management Information System (EMIS) and expanding and maintaining a MoE education portal that will include the following services; a] Learning Management System (LMS) to be used in supporting school learning and online learning, b] an open educational resource (OER) repository, and c] appropriate communication and social networking tools to facilitate interaction between key education stakeholders. The portal, and its services, will be populated with content and online interactions facilitated by the MoE Education Services Department's Curriculum coordination support section with support from the instructional materials section. (See 3.2.3)
- 3.1.3. The Ministry of Education, through its own IT Support Unit, will be tasked with the installation of new ICT, maintenance and upgrading of existing ICT facilities and will submit a National ICT in Education Expansion Plan with cost projections for review and be allocated from the treasury an annual budget that allows it to perform these tasks.
- 3.1.4. To ensure safety, health, and security across educational institutions, through appropriate strategies which will include:
 - 3.1.4.1. Development of an infrastructural standard for all teaching & training venues;

- 3.1.4.2. Improvement of basic infrastructure at the classroom level, electrical outlets, physical security facilities where necessary, and flexible furnishing arrangements to enable use of ICT in a wide range of educationally innovative and varied ways;
- 3.1.4.3. Development of a suitable, environmentally responsible ICT replacement and e-waste disposal strategy in line with national directives.
- 3.1.5. The Ministry of Education will develop strategies that encourage access to mobile devices. Existing strategies such as subsidisation of devices needs to be streamlined and made more attractive. The ministry needs to further encourage a bring-your-own-device (BYOD) culture among students and staff.
- 3.1.6. Provide ICT in more flexible arrangements other than static and fixed ICT labs. Mobile furniture to facilitate classroom re-arrangement and implementation of diversity of teaching styles.
- 3.1.7. Current human resources for the maintenance of ICT infrastructure will be re-organized to streamline maintenance of ICT equipment, through the following interventions:
 - 3.1.7.1. At the Ministry of Education, National ICT in Education Expansion Plan will be developed and updated annually.
 - 3.1.7.2. The MoE will coordinate the ICT Support Unit tasked with doing second level ICT maintenance for school communities and coordinating the expansion of school ICT facilities and systems.
 - 3.1.7.3. A structured focus will be placed on integrating school ICT coordinators and learners into maintenance teams to offer first level maintenance to increase maintenance capacity and offer learners practical learning opportunities.
 - 3.1.7.4. DICT will focus on the general provision of school connectivity, networks, and central systems hosting.
- 3.1.8. At the level of individual educational and training institutions the Policy calls for community involvement in planning the maintenance and expansion of infrastructure and connectivity at their institution. Ministry will train and support local stakeholders to develop an institutional ICT Integration Plan that considers,
 - 3.1.8.1. Budget for ICT - provide adequate annual budget allocations to ensure the sustainable operation, maintenance, and development of ICT systems.
 - 3.1.8.2. Location of ICT to improve access - As resources permit, ICT should be arranged to provide all teaching and learning spaces with ICT facilities and maximising access by all; Explore ways and means to facilitate students' access to ICT facilities outside the classroom time through such activities like computer clubs.
 - 3.1.8.3. Development of additional ICT resources - as opportunities arise, explore the range of ICT peripherals and software that can enhance teaching and

learning and promote awareness of such resources at the level of the institutions, amongst staff members.

3.1.8.4. ICT access for teachers / lecturers - explore ways and means to provide members of staff with adequate access to ICT facilities both within and outside the institution for the purpose of planning and preparing for their teaching.

3.1.8.5. Devising acceptable use guidelines, to encourage ethical and responsible use of institutional ICT systems by the stakeholder community.

3.2 Facilitating Student-Centred Teaching and Learning

The Ministry of Education advocates a student-centred learning environment that encourages independent learning. This can be facilitated by leveraging benefits afforded using ICT in teaching and learning. To this end the policy calls for:

3.2.1. The ongoing review and revision of the national curriculum at all levels, with strong emphasis placed on adjusting assessment strategies to assess a wider range of competences rather than just content recall. ICT can, when used effectively, be harnessed to enable different methodologies of teaching, support, and assessment in all learning areas and at all levels.

3.2.2. Pre- and in-service teachers, trainers, curriculum & assessment developers, and school managers to be provided with professional development opportunities that empower them with knowledge and skills allowing the implementation of methodologies that embrace ICT mediated independent learning. This goal recognises that without appropriate ICT-related pedagogies, ICT will only be used to replicate existing teaching and learning pedagogies. Institutional managers need to encourage and support the application of technology mediated pedagogies within their institutions.

3.2.3. The MoE Education Services Department's curriculum coordination support section with support from the instructional materials section will develop an education portal (See 3.1.2) aimed at learners, educators, parents, and the wider education community. The portal will have the following functionalities:

3.2.3.1. A repository of openly licensed education resources aligned to the national curriculum. These resources will be sufficiently comprehensive to enable learners to successfully meet the requirements of the national curriculum framework.

3.2.3.2. A learning management system (LMS) that will structure the above resources into curriculum-based e-learning courses and programmes that provide for self-study and/or online/blended learning. The LMS will provide a platform that allows users to interact with multimedia resources and receive immediate interactive feedback. The LMS can also be used to track individual student development and identify specific study needs.

- 3.2.3.3. Communication channel to allow online social interactions between different categories of education stakeholders, with a view to support ongoing professional development.
- 3.2.4. Quality assurance standards used to evaluate education programmes, courses and materials shall be adjusted to include criteria for the evaluation of digital materials and e-learning content including ICT-based pedagogy issues in evaluation / inspection of teachers and educators.
- 3.2.5. The Ministry of Education to harness suitable ICT tools and software to support its goal of providing universal access to quality education for all, at all levels, commencing from the early childhood level.
- 3.2.6. The MoE Education Services Department's Student Support Services section to prioritize the procurement of specialised technologies and software for inclusive learners with learner's special educational needs.
- 3.2.7. At the level of individual educational and training institutions, the policy calls for the following strategies with regards to the following dimensions of ICT in teaching and learning:
- 3.2.7.1. Integrating ICT in Teaching and Learning
- a) The ongoing institutional-based review to improve the quality of student-centered teaching and learning will continue to optimise the use of available ICT resources by the students;
 - b) The on-going teacher-self review/assessment shall maximise the potential of available ICT resources and develop a wide range of student competences including the higher order skills.
 - c) Wherever possible, new technologies, such as Augmented/Virtual Reality shall be used in developing teaching and learning materials to provide rich and practical learning experiences.
- 3.2.7.2. ICT and Students with Special Educational Needs - The optimising of the potential of ICT to support learning needs of students with special educational needs within the context of the 'Policy on inclusive Education.' Investigation and acquisition of technology solutions to support inclusive and special needs education to be coordinated by the MoE Education Services Department's Student Support Services section.
- 3.2.7.3. ICT and Student Assessment - The harnessing of the benefits of ICT in student assessment procedures and practices beyond the administrative level to include the tracking and analysis of student progress. Technology solutions to support assessment (including the use of Artificial Intelligence) shall be coordinated by the MoE Education Services Department's Assessment section.

3.3 Facilitating Cost-effective Access through OER and Open Licensing

3.3.1 Open Educational Resources

Open Education Resources (OER) can be used where possible to improve access to quality materials for learners and educators. If used thoughtfully they could also be used to reduce the cost associated with providing learners with study materials. Savings can be derived by reducing costs associated with the annual textbook replacement process, populating the education repository/portal with free content and preloading OER textbooks on learner mobile devices. A further potential advantage of using OER and Massive Open Online Courses (MOOCs) for teacher education is to offer online courses adapted from existing courses to improve the number of new teachers trained each year. In the light of the above, the Policy calls for:

- 3.3.1.1 The on-going advocacy and training in OER for educators, Ministry of Education officials and curriculum and assessment developers to develop/adapt relevant OER.
- 3.3.1.2. The licencing of original digital content developed by the Ministry of Education, including courses or programmes, under an appropriate Creative Commons (CC) open license agreements and share these online.
- 3.3.1.3. Developing open textbooks and provide the digital versions that can be accessed on learner and staff digital devices and therefore minimise the purchase of paper-based textbooks.
- 3.3.1.4. The Seychelles Institute of Teacher Education (SITE) to develop/adapt an ICT in Education online course from existing OER that achieves the competencies described in the Seychelles ICT Competency Framework for Teachers (SICTCFT - See 3.6.4). OER can also be adapted to offer a wider set of teacher education online programmes on non-ICT in Education areas to improve the numbers of teachers graduating and entering the profession as well as up-skilling those already in the profession.
- 3.3.1.5. The MoE Department of Education Services' Curriculum Coordination Support and Instructional Materials sections to investigate, collect, store, and distribute quality open digital education materials that match the curriculum objectives and use the education portal to disseminate them. The use of OER will ensure that the collection, storage, alignment with the curriculum, and dissemination processes are more cost effective.

3.3.2 Open Licensing

Given the strong commitment articulated to the use of OER, the Government of the Seychelles through the Ministry of Education is committed to opening access to educational materials produced in the country. Consequently, the Policy calls for the following commitments pertaining to government investments in educational and training materials, all within the framework of the Copyright Act (2014) as well as international copyright laws:

- 3.3.2.1. The Ministry to maintain the use of and access to licensed copyrighted software based on existing and future public-private partnerships (PPP - see 3.4 below) as coordinated by the Education Sector Development Department's Affiliation and Strategic Partners section.
- 3.3.2.2. Educational and training materials produced with Government funds – including both research resources and teaching and learning resources to be released under a suitable Creative Commons open license, to facilitate their use, electronic sharing, and adaptation by others. This will include resources of all media types, including print/text, audio, video, and computer-based multimedia. This activity will be coordinated by the Education Sector Development Department's Publications Archives and Document

- 3.3.2.3. The preferred open licenses to use include Creative Commons Attribution (CC BY), Creative Commons Attribution-ShareAlike (CC BY-SA), Creative Commons Attribution-NonCommercial (CC BY-NC) and Creative Commons-NonCommercial-ShareAlike (CC BY-NC-SA). The choice of the license will be governed by the remix of resources with different licenses, and the author/creator of the resource shall be responsible for ensuring appropriate attribution.
- 3.3.2.4. The Ministry of Education will reserve the right to license any copyrighted work using the most current version of the Creative Commons Attribution-NoDerivatives (CC BY-ND) and/or Creative Commons Attribution-NonCommercial-NoDerivatives (CC BY-NC-ND) licenses under the following conditions:
- (a) Where any derivative would affect the reputation of the agency or the integrity and authenticity of the work (CC BY-ND is suggested).
 - (b) Where the derivative or otherwise commercial circulation of the work would adversely affect the operation and economic viability.
- 3.3.2.5. The open licensing will not apply to any work if releasing the work under an open license would:
- (a) be contrary to legislation, court order or specific government policy;
 - (b) constitute a breach of contract or lead to disclosure of a trade secret; and/or
 - (c) prevent the patenting of an invention.

All exceptions to open licensing will rest with the Ministry of Education, where the ICT in Education Steering Committee will review the request and record such deviation to the policy.

- 3.3.2.6. The Ministry of Education to work to ensure that every education and training document released for distribution via the Internet (through its portal/national repository) to indicate the licensing conditions of the resources clearly on the resource itself, using properly marked, machine-readable Creative Commons licenses, to facilitate the sharing of its educational and training resources.

3.4. Establish ICT in Education Public-Private Partnerships

Given the benefits that have been derived from Public-Private Partnership (PPP) in the recent past the Ministry, through the Department of Education Sector Development's Affiliation and Strategic Partners section, will endeavour to establish further partnerships with both local and international partners that will benefit the Seychelles education community.

- 3.4.1. All ICT in Education PPPs will be aligned to, and in service of, the vision and mission of the ICT in Education policy. ICT in Education PPPs should support classroom practice for better learning outcomes, improved teaching styles or more efficient education services.
- 3.4.2. When establishing ICT in Education PPPs it is important that all parties agree upon resource and risk-sharing to ensure that ICT educational outcomes truly benefit the beneficiaries. Roles and responsibilities shall be explicit within each PPP agreement.
- 3.4.3. All ICT in Education PPPs will have high level approval from the Minister and the Principal Secretaries to ensure buy-in among ministry staff and the wider school community.
- 3.4.4. Each ICT in Education PPP agreement will have a clear financing plan to eliminate budget creep and disagreements leading to partners not willing to contribute resources and risk sustainability.

3.5. Collection, Administration, Analysis & Management of Education and Training Data

ICT has the potential to enhance the efficiency of an organisation with regards to the collection management and usage of relevant data. In recognition of this potential, the Policy calls for the following commitments:

- 3.5.1. The development and deployment of an online multi-level Education Management Information System (EMIS) to measure and track outcomes at class, school, zone, and Ministry levels required by the Ministry, other Ministries, and external partners / agencies. The EMIS will include management tools at school level to facilitate the day-to-day management of schools and automated uploading of data on the system.
- 3.5.2. The continuous training of data handlers to analyse information and generate necessary reports that can be used by decision-makers across the system to assist in the development of new policies, guidelines, and other key strategic decisions;
- 3.5.3. The Ministry of Education to encourage the greater ownership, planning, and accountability from educational and training institutions in the optimal use of currently available ICT resources under their responsibility through the development and implementation of an annual ICT Integration Plan with agreed defined parameters and procedures. (See 3.1.8 above)
- 3.5.4. The Plans to shall be submitted to the Ministry of Education as per an established timeframe and reviewed by the Department of Education Sector Development's Institutional Data Management section, to ensure that they are realistic and to enable monitoring to determine the relative success of educational and training institutions in achieving set goals.

3.6. Capacity Building and Professional Development of Relevant Stakeholders

The Ministry of Education is committed to developing personnel to use and support ICT in Education and Training through a process of regular training and professional development to expand their core competencies. These stakeholders include Ministry of Education officials, head teachers and principals, management teams, administrators, teacher educators, educators at all levels, learners, parents, and the general public. The Policy calls for the following commitments:

- 3.6.1. Advocacy to ensure educators and ICT support officers are aware of the ministry's professional development strategy and its implications.
- 3.6.2. The Ministry of Education shall conduct comprehensive audit on a regular basis to determine training needs of teachers and offer continuous professional development (CPD) through SITE.
- 3.6.3. The creation and adoption of a Seychelles ICT Competencies Framework for Teachers (SICTCFT) across all levels and stages. The Seychelles ICT CFT, and the skills audit results (see 3.6.2), will guide the development of ICT in Education professional development options for educators as identified in the MoE's Professional Development strategy document (see. 3.6.1)

The Seychelles ICT CFT framework will encourage the acquisition of ICT skills beyond basic ICT skills. The Seychelles ICT CFT's competencies will address issues of education policy application, curriculum technology support, digital assessment tools,

technology to support progressive pedagogy, ICT organisation within an institution and technology to support ongoing professional development. These ICT skill competencies will be relevant for both in-service educators in all subjects and grades, as well as pre-service teachers studying at SITE.

In addition, curriculum and assessment developers, personnel responsible for providing ICT advisory and support services to educational and training institutions and to the Ministry headquarters will receive training to acquire the ICT competencies identified in the Seychelles ICT CFT and be competent ICT users.

- 3.6.4. In recognition that ICT support technicians require an in-depth knowledge of networking, hardware, and software to assist non-technical users, diagnose and resolve software and hardware problems, the Ministry of Education will work in partnership with service providers, to provide certification training programmes for support technicians and nominated educators and students so they can offer maintenance and networking services at institutional level.

3.7. Effective and Co-ordinated Governance, Implementation and Organisational Arrangements

In operationalizing this policy, it is essential to facilitate collaboration and effective co-ordination between government Ministries, most notably between the Ministry of Education and the Department of ICT and structures within the Ministry of Education. The Policy calls for the following commitments:

- 3.7.1. DICT, to be responsible for ICT infrastructure (connectivity and networking) nationally, including provision of servers and the hosting of infrastructure for the education portal and its services (including a content repository, EMIS, learning management system, and suitable social networking tools).
- 3.7.2. The Ministry of Education through its own institutional ICT support team to be responsible for installation, after care and maintenance of equipment in educational and training institutions, development of curriculum & assessment content, as well as the training of educators. Moreover, it will be responsible for the population of databases, loading content and facilitating online interactions with users.
- 3.7.3. Seychelles Institute of Teacher Education (S.I.T.E) to provide ICT in Education training (as defined by the SICTCFT) for all pre-service educators as part of the formal teacher training curriculum, while for in-service educators ongoing regular opportunities to acquire SICTCFT competencies should be offered as part of their continuing professional development and in partnership with other key agencies via the MoE office of Schools, Professional Centres and University.
- 3.7.4. The SIDOL shall be responsible for developing and maintaining open textbooks for Secondary School subjects and provide access to these for all students and teachers in Seychelles.
- 3.7.5. The MoE Department of Education Services' Curriculum Coordination Support section to be responsible for the creation of the online content for Early Childhood and Primary stages of education and training on the education portal's LMS.
- 3.7.6. An ICT in Education Steering Committee shall be established at the level of the Ministry with defined Terms of Reference to be chaired by a senior official of the Ministry.
- 3.7.7. The institutionalisation of a position of responsibility at the level of education and training institutions with clearly defined responsibilities with regards the integration of ICT in education and training.

3.7.8. The Ministry of Education has two departments with their own Principal Secretary, the Department of Education Services (DES), and the Department of Education Sector Development (DESD). To action the policy both departments need to work collaboratively. In some instances, sections within both departments will need to work cooperatively, requiring regular communication and meetings.

3.8. Effective Monitoring & Evaluation

For successful implementation of the Policy commitments, the ICT in Education Steering Committee at the MOE shall monitor and evaluate the policy by developing a plan with identified strategic objectives, result indicators and timeframes. The Policy calls for the following commitments:

3.8.1 The roles and responsibilities of the ICT in Education Steering Committee shall be:

- 3.8.1.1 Advise the Minister on developments, seek approval for initiatives, recommend annual budget, provide timely inputs, and feedback, and clarify issues of relevance to the remit of the Policy.
- 3.8.1.2 Develop and implement a Plan of Action for the Policy with clearly defined activities/ interventions, targets/ performance indicators, timeframes, and responsibilities, as per an approved template.
- 3.8.1.3 Develop, maintain, and implement an effective and coordinated information, awareness, education and communication plan and programme and related strategies of relevant aspects of the Policy implementation, monitoring, reporting and evaluation for the different categories of stakeholders.
- 3.8.1.4 Develop appropriate Reporting Templates to gauge the implementation progress of the Policy in line with agreed timeframes.
- 3.8.1.5 Commission necessary evaluation of aspects of Policy as per defined Terms of Reference and to disseminate relevant aspects of the results of the evaluation to relevant stakeholders in a timely manner.
- 3.8.1.6 Ensure the regular and timely review of the progress of the implementation of the Policy through the Committee Activity Plan and disseminate the progress update to the relevant stakeholders as per the agreed framework.

3.8.2. The composition of the ICT in Education Steering Committee shall consist of:

- 3.8.2.1 The Chairperson shall be a high official of the Ministry of Education, nominated by the Minister of Education, and not lower than Principal Secretary.
- 3.8.2.2 Representative from Ministries, institutions, agencies, and organisations whose operations have implications for, or may be affected by the Policy (maximum of 4); and
- 3.8.2.3 The Head of ICT Unit in the MOE shall serve as the Convener and Secretary of the Committee.

3.8.3. The ICT in Education Committee shall co-opt other members as may be required to execute its roles and responsibilities.

3.8.4. The Committee shall meet as often as is considered necessary to address its responsibilities, but not less than two times in a year.

3.8.5. The Steering Committee shall develop its own procedures, including creation of any taskforce or working group, as may be required.