Education Sector Strategic Development Plan 2020 – 2024

Federated States Of Micronesia

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Acronyms and Abbreviations

ADB	Asian Development Bank
AGR	Annual Growth Rate
COFA	Compact of Free Association
COMET	College of Micronesia Entrance Test
COM-FSM	College of Micronesia–FSM
CPD	Continuing Professional Development
CTE	Career and Technical Education
DP	Development Partner
DOFA	Department of Finance and Administration
DRR	Disaster Risk Reduction Policy
ECE	Early Childhood Education
ECCD	Early Childhood Care and Development
EDD	Education Data Digest 2018 (FedEMIS Report)
ELA	English Language Arts
EMIS	Educational Management Information System
FACSSO	FSM Association of Chief State School Officers
FSP	Focused Strategic Plan
GAO	Government Accountability Office
GPE	Global Partnership for Education
ICT	Information and Communication Technology
IQBE	Improving the Quality of Basic Education
JEMCO	Joint Economic Management Committee
MTEC	Micronesia Teacher Education Conference
NDOE	National Department of Education
NFE	Non-formal Education
NMCT	National Minimum Competency Test
NQF	National Qualifications Framework
NSTT	National Standardized Test for Teachers
PacREF	Pacific Regional Education Framework
PILNA	Pacific Islands Literacy & Numeracy Assessment
RMI	Republic of the Marshall Islands
SAS	School Accreditation System
SDG	Sustainable Development Goals
SDOE	State Department of Education
SDP	Strategic Development Plan
SEG	Supplemental Education Grant
SIP	School Improvement Plan
SY	School Year
TA	Technical Assistance
TLM	Teaching and Learning Materials
TVET	Technical and Vocational Education and Training

Executive Summary

FSM is a federation of four small island states—Chuuk, Kosrae, Pohnpei, and Yap—each with its own government and distinctive identity. The population of approximately 105,544 (per 2017 World Bank data) is distributed unequally over the four states, with Chuuk being the most populous state with nearly half (48%) of the national population living on its many islands and atolls, and Kosrae is the smallest.

The island country is heavily dependent on external assistance, with budget grant income estimated at 43 % of its gross domestic product (GDP). The dependence of FSM on imports exposes the country to global economic shocks and price spikes. Environmental factors are significant, as FSMs geographic location makes it particularly vulnerable to accelerated sea-level rise and prone to natural disasters particularly typhoons. This geographic location, however, was leveraged as a strategic protection in 2020, when the FSM remained one of the world's few Covid-19-free nations during a devastating global pandemic.

A declining population growth rate, diminishing economies-of-scale, deteriorating infrastructure and the lack of resources affect the provision of basic services, including the delivery of quality education. These challenges are compounded by impending changes to occur in 2023 to the Compact of Free Association (COFA) agreement with the United States (USA), which has yet to see the conclusion of formal negotiations and associated funding levels.

As part of the strategies to prepare FSM for the budgetary challenges likely to occur in the immediate future, a new Education Sector Strategic Development Plan (ESSDP) 2020–2024 has been prepared with support from the Global Partnership for Education (GPE). Although specific to the needs of the people of FSM, the ESSDP is also aligned with the Pacific Regional Education Framework (PacREF) and the global Sustainable Development Goals (specifically Goal 4 for Education) usually referred to as SDG4. FSM recognizes the importance of working cooperatively within the Pacific region as well as maintaining the global focus on higher quality student learning outcomes and so the new FSM ESSDP is aligned with the key principles found in both the PacREF and SDG4 documents.

The richness and diversity of the many cultures that thrive throughout the FSM provide opportunities for robust place-based, multi-lingual education, but also present challenges for system-wide initiatives, which are complicated by the lack of a unifying language and the political structure of the semi-autonomous states. Linguists identify 17 indigenous languages spoken in FSM, and each state has one of these as a specific majority state language. Eleven languages are in active use as the first and elementary languages of home islands or communities. The main medium of instruction at elementary grades is specified to be the vernacular in all states, but this doesn't always happen in practice, with some teachers using English or the majority state language. Although English is the official language for FSM and is used as a medium of instruction in

schools, it is the second language for around 98% of all students and so there is no single unifying language structure across all 607 islands of FSM.

A Strategic Plan for Improvement of Education in the Federated States of Micronesia was prepared in 1997 but appears to have had very little impact on improving educational quality. There has been slow progress with respect to language policy that was included in the plan. A further initiative was a national Focused Strategic Plan (FSP) for education that was designed and implemented from July 2009 to August 2015. Over that period, there was limited improvement in the quality of student learning outcomes. This new ESSDP for 2020- 2024 has attempted to address this quality shortfall directly and adopts a single overall goal for the new ESSDP**: to improve the quality of learning particularly in literacy (reading) and numeracy at all education levels in safe, climate-resistant learning environments.**

To achieve this goal, the ESSDP specifies the following 5 sub-goals which directly support the overall goal;

1| Provide high quality relevant programs for learners at all levels of education
2| Improve the quality of teachers and teaching at all levels
3| Maintain consistent performance monitoring and data-based decision-making systems
4| Strengthen the participation of communities in the management of schools
5| Ensure that education is relevant to the life and aspirations of the people of FSM

Through structured activities, it is expected that the ESSDP will generate improved student learning outcomes, particularly in literacy and numeracy, at all levels; it will result in increased numbers of students, including those with special needs (including but not limited to children with disabilities), attending school and experiencing a variety of quality educational opportunities that result in improved levels of learning.

There are several stages to be followed in preparing a new sector plan, and the first step was to conduct a **national sector analysis** that gathered important data about enrolment, attendance, quality of teaching and learning, student-teacher ratios, budgets and school resource materials. An initial sector analysis was carried out in 2016–17 and was updated during 2019. It revealed several strengths, weaknesses, challenges and issues for the education sector, and the complete final report provided important evidence-based data that has been used in the preparation of this ESSDP for 2020–2024. **This is included as Annex 1 to this plan.**

The ESSDP 2020-2024 is divided into five chapters covering the following areas:

Chapter 1: Description of the FSM context and the development strategy for education;

Chapter 2: The scope of the education sector in FSM including a review of sector performance to date and an analysis of causes for the improving, yet relatively low student performance outcomes;

Chapter 3: An outline of the education sector plan and its relationships to other regional and international strategies;

Chapter 4: An implementation plan;

Chapter 5: Resource requirements including a financing plan;

Chapter 6: The ESSDP Monitoring and Implementation plan;

Chapter 7: Risk management and sustainability options for the plan.

The annexes provide the background data from the sector analysis as well as the detailed monitoring and evaluation plan (as a separate Excel file).

There are three important themes running through this ESSDP. The first is the emphasis on improved learning outcomes, particularly in the key platforms of numeracy and literacy. The sub-goals are all directed towards this outcome, with an emphasis on relevance of high-quality programs for learners delivered by well-trained teachers using modern approaches that will engage all learners (such as blended learning). The importance of continuous performance monitoring is stressed, along with the importance of ensuring community participation in the day-to-day activity of schools. The role of the sector in preparing students for the world of work and relevant skills are also key aspects of this ESSDP and it relies on a sound base of literacy and numeracy being built over earlier years of schooling.

The second important theme of this ESSDP is to provide a platform on which each of the state departments of education can work more collaboratively with each other through the national department of education (NDOE) as coordinator to prioritize policies and activities in the sector, particularly to address the most pressing issues pertaining to equity, inclusion, and ensuring access to education for the most vulnerable, many of whom live in particularly remote and secluded part of the country – all whilst facing potential constraints on funding. The FSM budget for education across the duration of this sector plan demands greater sharing of both expertise and fund allocations across the nation in a coordinated collaborative effort.

The third theme of the ESSDP follows on from the 2nd theme and recognizes that with shrinking resources it is essential to prioritize those activities that will best provide improved learning outcomes in literacy and numeracy, and to design a timeline that promotes greater effectiveness and efficiency of delivery. This requires some scenarios to be developed that (a) use current budgets more effectively and (b) seek the support of development partners so that targeted initiatives can be introduced that are not able to be funded from within government budgets. Additional funds are unlikely to be provided to FSM from external sources unless there are strong accountability mechanisms in place and that there is a sector-wide framework showing that the states, the national body and government are working collaboratively in an efficient and effective manner.

Chapter 1: Introduction and Context

1.1. Country Context

The Federated States of Micronesia (FSM) is a remote, geographically dispersed chain of 607 islands which together with the separate small island country of Palau make up the Caroline archipelago in the North-western Pacific. Like many small island states in the Pacific, FSM faces significant structural challenges in developing an economy and a level of human development that can sustain government functions and provide effective basic service delivery. These challenges largely arise from FSM's remoteness, internal geography, economy, and the relatively small and declining human population, excellerated by the visa-free migration provisions of the Compact of Free Association with the United States.. FSM is a federation of four states—Chuuk, Kosrae, Pohnpei, and Yap—that extend 1740 miles from east to west. Each state has its own government and identity. Palikir in Pohnpei is the seat of the national government headquarters. The country has a population of approximately 105,544 (per 2017 World Bank data) distributed over a land area of 273.5 sq. miles, which is dispersed over around one million square miles of ocean. Kosrae is the smallest of the four island states (42 sq. miles) and it is the only one consisting of a single main island. Chuuk is the most populous state, being home to nearly half (48%) of the national population and having the largest town. It is also the largest state geographically, with its many islands and atolls dispersed over a vast spread of the Carolinian chain of islands.

The island country is heavily dependent on external assistance, with budget grant income estimated accounting for 43 percent of its gross domestic product (GDP). It has few economic resources, and exports are concentrated mainly on fish. The dependence of FSM on imports exposes the country to global economic shocks and price spikes. Environmental factors are significant, as FSM is particularly vulnerable to accelerated sea-level rise and is prone to natural disasters particularly typhoons.

The physical isolation of the country and the distances between the four states pose specific development challenges regarding movement and communication. Chuuk, Pohnpei, and Yap all have isolated students, who have difficulties accessing formal education. Furthermore, the declining population growth rate, diminishing economies-of-scale, deteriorating infrastructure and the lack of resources affect the provision of basic services, including the delivery of quality education. These challenges are compounded by impending changes to the Compact of Free Association (COFA) agreement with the United States (USA) occurring in 2023 which may reduce funding to FSM. Despite encouraging statements made by the USA government in August 2019 and ongoing negotiations, this change, along with the shrinking of capital investment, will put additional pressures on budgets.

Despite the challenges described above, there are many opportunities available within the country to advance the standard of living and particularly standards in education. The people of FSM are

very receptive to changes brought about by new ideas and they welcome initiatives that will improve their lives and livelihood. There is increased interest in developments in international education that may have application in the FSM context. This greater awareness of options for change to improve conditions has come through expanded access to the internet along with travel to other countries so people are better informed about new directions available to them.

1.2. Background to FSM's Development Strategy for Education

A Strategic Plan for Improvement of Education in the Federated States of Micronesia was prepared in 1997 but appears to have had limited impact on improving educational quality. There has been slow progress with respect to language policy that was also included in the plan. A further initiative was a national Focused Strategic Plan (FSP) for education that was designed and implemented from July 2009 to August 2015. This FSP noted that the overarching policy framework for education in the FSM is provided by the national constitution which limits itself to a very broad framework for defining the purpose of education as 'preserving the heritage of the past' and 'respecting the diversity of cultures'. The role of the national government through education is further defined within this broad framework as setting minimum nationwide standards, coordinating state activities and foreign government assistance, and providing training, technical assistance and support for post-secondary education programs.

From 2009 to 2015, there was limited improvement in the quality of student learning outcomes across FSM, though significant improvement has been seen on the PILNA between 2015 and 2018.

The preparation and implementation of a national sector plan for education faces complexity, because the FSM has some special characteristics that distinguish it from many other Pacific island nations. One major issue is the cultural and linguistic diversity across the four separate and semi-autonomous states that make up the FSM. Linguists identify 17 indigenous languages spoken in FSM, and each state has one of these as a specific majority state language. The other 13 languages range in size, but 11 of them are in active use as the first and elementary languages of their home islands or communities. The main medium of instruction at elementary grades is specified to be the vernacular, in all states, but this doesn't always happen in practice, with some teachers using English or the majority state languages. Although English is the official language for FSM and is used as a medium of instruction in schools, it is the second language for around 98% of all students and so there is no single unifying language structure across all 607 islands of FSM. A serious dilemma for educators is that many local spoken languages do not have well-established writing systems or significant amounts of printed texts.

2009 was the first time that a specific sector plan for education had been prepared for FSM (as opposed to the previous cross-sectoral strategic plans). The FSP was designed around 5 strategic development goals along with detailed strategic objectives and activities listed under each goal. An education summit for FSM convened in Pohnpei in February 2015 reviewed each of these education sector strategic development goals and recommended some strategies for sustaining quality education after 2015. These were contained in a communiqué signed by each of the four state governors that was issued at the close of the summit. Since 2015, the learning outcomes have been showing steady improvement in both literacy and numeracy as evidenced, for example, by the results published in PILNA in 2019.

This new FSM Education Sector Strategic Development Plan (ESSDP) 2020–2024 has been prepared with funding support from the Global Partnership for Education (GPE). Although specific to the needs of the people of FSM, the ESSDP is aligned with:

1| The Pacific Regional Education Framework (PacREF) (sub-titled 'Moving Towards Education 2030')[1] and
2| The Sustainable Development Goals, specifically Goal 4 for Education (usually referred to as SDG4).

[1] Pacific Regional Education Framework 2018–2030 (PacREF), developed by the Pacific Heads of Education Systems (PHES)

Chapter 2: Education Sector

2.1. Overall description

The education system in FSM has been influenced in its development by historical circumstances and its particularly close political ties with the United States. FSM's free public education is modelled after the US example. Attendance in grades 1–8, the first eight years of public-school education, is mandated as compulsory for all students in FSM aged 6 to 14 years (including those with disabilities) or until the completion of grade eight. Secondary schooling (grades 9–12) is not compulsory. Some private schools offer both elementary and secondary education, but parents are required to pay fees for this service. The government provides school textbooks free of cost to all students. The education sector consists of early childhood education (ECE or kindergarten), elementary and secondary education, and students with special needs are included within the mainstream groupings. Non-formal education and other post-school components that include technical and vocational education and training (TVET) and other forms of vocational education are also included within the education sector. An FSM Fisheries and Maritime Institute (FMI) is located in the State of Yap and it provides career education with a focus on the areas of fisheries and maritime livelihoods. That said, the differences between educational systems and their outcomes between states are significant, due to their geographical spread, different value systems and socio-cultural attitudes as well as economic conditions.

Tertiary education comprises academic certificate and degree programs offered through the College of Micronesia (COM-FSM) which has a main national campus in Pohnpei and linked campuses in each state. Secondary level completers must pass the COM-FSM entrance test (COMET) to gain entry to tertiary study. COM-FSM is mandated by the Congress of FSM and is therefore accountable to Congress rather than the National Department of Education (NDOE). However, the Secretary of Education advises the Board of Regents on educational matters such as students' needs and particularly FSM human resource requirements and any other problems and prospects regarding post-secondary education.[2] In addition to a new bachelor degree program, COM-FSM offers a wide range of 2–3-year associate degrees and other short-term programs in technical and vocational sectors and career education, but completing the COMET successfully to enroll in these programs is an obstacle to many students.

NDOE is responsible for (i) setting national standards for school accreditation, (ii) standards for teacher certification, (iii) school curriculum standards and benchmarks; (iv) student assessments and (v) special education. The FSM Association of Chief State School Officers (FACSSO)--comprised of the NDOE Secretary of Education, the Directors of Education in each state, and the COM-FSM President--serves as the mechanism to foster collaboration and approve resolutions that impact the entire education sector, including decisions about external funding

[2] FSM National Qualifications Framework (2019) NDOE Pohnpei

sources. Each state government has its own Board of Education which oversees the respective State Departments of Education (SDOE) in each of the four states. Each SDOE is responsible for providing direct educational services including administration, curriculum development and special education. National and state departments each have scholarship schemes that they implement separately. Each SDOE can also adjust the national standards set by NDOE to suit their own context, keeping in mind that the national standards are the minimum standards and the states cannot vary them below that minimum level. The geographical spread and different value systems including socio- cultural attitudes as well as economic conditions between the four states mean that there are significant disparities between and within them which presents challenges in developing a unified national plan for education.

Through the Division of Special Services, NDOE works to ensure the early detection of disabilities at early childhood level with screening, treatment and referrals, and liaises with the department of health for the provision of assistive devices and support services.

An intersectoral approach linking government departments with educational institutions and other social protection, health, and community-based agencies will facilitate the provision of child-friendly environments for all students and particularly for children with disabilities. Teachers use inclusive education strategies to ensure that children with disabilities are included in mainstream education, which will be further strenghtened through planned pre- and in-service training on inclusion and working with children with disabilities.

2.2. Scope of the education sector

The education sector in FSM consists of:

- public schools and chartered non-public schools that offer early childhood, elementary and secondary levels of education;
- tertiary education offered through the COM-FSM which has a main campus in Pohnpei and linked campuses in each state (note that the COM-FSM is not under the authority of the NDOE);
- technical and vocational education and training, and
- non-formal education (in name only, with little provision for this area in the past).

These are described further below:

2.2.1. Early Childhood Education (ECE)

Early childhood education (ECE) is a preparatory program conducted within a safe and nurturing environment that promotes the physical, social, emotional, and intellectual development of young children up to and including age 5. Early Childhood Care and Development (ECCD) overlaps with this definition but the inclusion of care suggests pre-schooling or preparation for schooling where the focus is on the health and nutrition of children and their evolving emotional and social abilities, as well as their minds.

With these definitions in mind, SDG4 Target 4.2 states that by 2030 countries should 'ensure that all girls and boys have access to quality early childhood development, care and pre- elementary education so that they are ready for elementary education'. In accordance with this target, FSM considers ECE as extending from age 3 through to age 5 with a variety of formal education programs that include pre-school or kindergarten being provided for this 3 to 5-year age group. Screening programs that identify students with special needs are conducted for children aged from

birth to age 5 in accord with FSM P.L.8-21 and FSM P.L.14-08 which guarantee that each child must be given the opportunity to grow to their fullest potential to (eventually) become a productive citizen of the state.

ECE in the FSM gained prominence through the US federally funded Head Start Program that was implemented through the 1960s to the 2000s. Each state adopted and modified Head Start Program rules and regulations to accommodate their own unique dispositions in demographics, cultural context, and jurisdictions. These modified programs operated within the FSM Code Title 40 in which the provisions of education are mandated as the right to an education for all children from age 6 to 14. Although the age range for children attending ECE in the FSM is stated as being from 3 to 5 years of age, each state is administering slightly different policies regarding the age for school attendance at ECE level.

The ECE program administration at the NDOE level operates under the Division of Formal and Non-Formal Education, which also is responsible for elementary and secondary education programs. Young children are carefully screened at an early stage by the Division of Special Services to identify those who may have special needs and would be eligible to receive early intervention and special education services to help ease the burden of mainstreaming into the regular school population.

The ECE program varies across each of the different states and operates under the direction of ECE program coordinators in each state. For example:

- in Kosrae, there are seven (7) centers; one in each community school campus covering years K–grade 8, with Kindergarten served by both regular ECE teachers and special education teachers (for children identified with disabilities);
- in Pohnpei, there are 25 schools offering kindergarten level. In SYs 2016–18, ECE enrolment declined by over 1%. Outer island coverage is limited as there is only one ECE center functioning due to lack of numbers required by legislation to keep a center open;
- For Yap, the ECE program is a comprehensive child development program designed to serve children and their families primarily through 24 ECE centers that are integrated with existing elementary schools but are not located in these school sites. There are also two K-12 schools within the state;
- In Chuuk, ECE has been renamed as K5 which serves students aged 5-years old. Most K5 classrooms are now located within elementary schools, with consolidation of the remaining K5 classes being carried out intermittently as resource availability changes and land ownership issues arise. There are 60 schools offering Kindergarten level education in Chuuk.

2.2.2. Elementary and Secondary Education

The first eight years of public-school education (grades 1–8) are compulsory for attendance of all students in FSM aged 6 to 14 years (including those with disabilities) or until the completion of grade eight. Secondary schooling (grades 9–12) is not compulsory. Students with disabilities primarily attend school through an inclusion model, receiving additional services based on the contents of their Individualized Education Plans (IEPs).

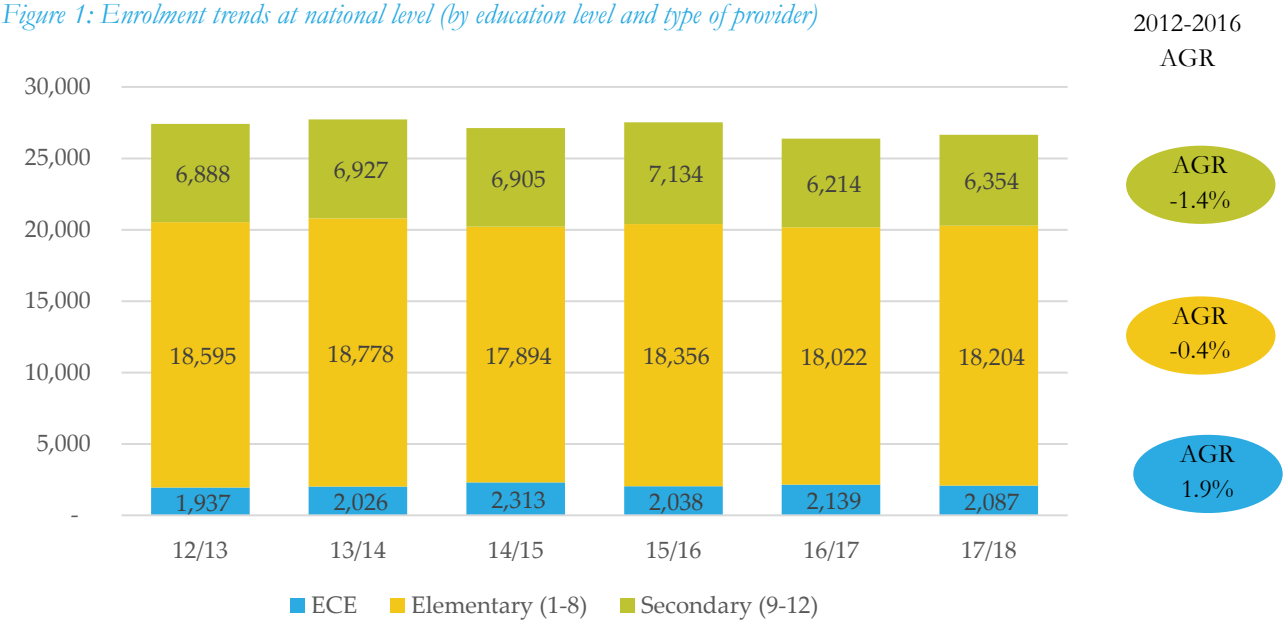
As stated earlier, the NDOE is responsible for setting standards in teacher certification, school accreditation, curriculum standards and student assessments; the SDOEs are responsible for implementing these minimum standards in elementary and secondary schools within each state

but may also choose to demand a higher standard than the regulations specify. In 2019, there are 185 schools (167 public; 18 private) in FSM (excluding the 24 ECE centers in Yap). This count includes all private schools that are chartered by the NDOE. Most schools in FSM have an average size or student population of 100 to 200 students. Two schools only (1 each from Chuuk and Pohnpei) have more than 1,000 students.

Most elementary schools are serving ECE to Grade 8 (75 or 47%) or grades 1–8 (44 or 27%). One school offers grades 1–10, and 16 schools (10%) offer secondary education (grades 9– 12) exclusively.

The elementary and secondary enrolment levels are both decreasing across all states reflecting the overall population downfall projections based on the 2010 FSM census:

Figure 1: Enrolment trends at national level (by education level and type of provider)



Source: (FSM ESA)

As stated earlier, schooling is compulsory until grade 8 level, with attendance at secondary level (grades 9–12) being optional. The non-compulsory nature of secondary schooling is a major contributing factor to decreasing school attendance. Other factors that are contributing to this downtrend are out-migration, school dropouts (expulsion) and self-withdrawal.

The NDOE is responsible for the national assessment of overall effectiveness of curriculum standards in classrooms and of student learning outcomes. The sole instrument currently used nationally to assess student learning in Literacy and Numeracy is the National Minimum Competency Test (NMCT) which assesses student learning based on the standards and benchmarks described in the FSM national curriculum. The test for reading is administered to all 6th, 8th, and 10th grade students across the nation. The mathematics test is administered to 4th, 6th, 8th, and 10th grade students. The recent results indicate a slowly rising attainment trend, if from a low baseline:

Table 1: NMCT data for Reading: SY 2014 – 2018 (in %)

	Grade 6			Grade 8			Grade 10		
	Baseline	Target	Score	Baseline	Target	Score	Baseline	Target	Score

2014 / 2015	Incomplete[3]			35	35	35	35	35	35
2015 / 2016	31	31	31	-	37	28	-	37	39
2016 / 2017	-	33	32	-	39	28	-	39	45
2017 / 2018	-	35	35	-	31	29	-	41	48

Source: (FSM ESA)

Table 2: NMCT data for Mathematics: SY 2014 - 2018 (in %)

	Grade 4			Grade 6			Grade 8			Grade 10		
	Base.	Targ.	Score	Base.	Targ.	Score	Base.	Targ.	Score	Base.	Targ.	Score
2014 / 2015	25	25	25	21	21	21	22	22	22	25	25	25
2015 / 2016	Incomplete[4]			-	23	25	-	24	20	-	27	21
2016 / 2017	25	27	30	-	25	26	-	26	21	-	29	22
2017 / 2018	-	29	33	-	27	29	-	28	22	-	31	22

A national test of learning in science has been prepared and tested once to date and will be used when it is finalized; a similar national test for social science is planned for testing and introduction in the future.

An additional assessment tool, the Pacific Islands Literacy and Numeracy Assessment (PILNA) measures and monitors the achievement of Grade 4 and Grade 6 students in Literacy and Numeracy across the Pacific region. It was administered in selected schools in FSM, and the 2018 results show that there was significant improvement in numeracy at Year 6 along with an improvement in literacy at both Year 4 and Year 6. The improvement in achievement levels in Literacy and Numeracy in PILNA were reflected in the FSM results measured under the NMCT, with significant improvements in Year 4 and Year 6 Numeracy and Year 6 and Year 10 Literacy.

2.2.3. Tertiary (higher education)

Tertiary education in FSM comprises academic certificate and degree programs offered through the COM-FSM, which has a main campus in Pohnpei and linked campuses in each state. The COMET is administered annually to grade 12 completers to test their eligibility to enter tertiary education. Disaggregated COMET results for 2018–19 reported in the sector analysis reveal no significant changes in overall numbers from preceding years, but there is a notable difference in the number of females seeking entry to higher education when compared to males. In 2018, there were 784 female applicants admitted compared to 721 male applicants.

In 2019, COM-FSM launched its first-ever bachelor's level degree program, which was in the field of Education. Previously, students were required to travel outside FSM to universities such as the University of Guam, the University of the South Pacific or even further afield for university degree-level studies. NDOE offers national scholarships for study at the undergraduate, graduate or post-graduate level. In SY2017/2018 there were 482 scholarships awarded of which 118 were for 2-years study and 364 were for 4-years study.[5] Only 34 (7%) scholarships were in education-related areas (curriculum, special education and teaching). In addition, there are students with scholarships issued by foreign governments as well as private students studying outside FSM. The states also have their own scholarship schemes.

[3] Grade 6 Reading data was incomplete for SY 2014-15, so the baseline was set in the following year
[4] Grade 4 Mathematics data was incomplete for SY 2015-16, so the baseline was rolled to the following year
[5] EDD 2017/2018, pp. 115–119

2.2.4. Vocational training in FSM

The technical and vocational education and training (TVET) program in FSM currently consists of low-key elective programs beginning in grade 9 in secondary schools called Career and Technical Education (CTE). Elective vocational education programs were previously made available in 29 high schools across FSM at secondary level and they offered mostly practical applications of skills in areas like basic carpentry, mechanics, agriculture, home arts/economics and in some traditional life skills like weaving, carving and canoe-building. They have now lapsed in most schools due to a lack of financial and human (teaching) resources and poor workshop conditions with outdated equipment. The few remaining programs are of varying length and largely theoretical which is not effective for those students who learn best through active hands-on learning. Generally, only 2 periods per week of 45 minutes duration (one for theory, one for practice) are offered to those students choosing vocational subjects, but these programs differ between states.

COM-FSM also offers 2–3 years associate degrees and other short-term programs in technical and vocational sectors and career education, but to enroll in these programs, secondary level completers must also pass the COMET, and this proves an obstacle to many students. There is considerable potential to expand this sector to provide continuing educational opportunities for the many young adults who graduate from secondary school but do not pass the entrance test to COM-FSM. An expanded curriculum may provide greater relevance for both secondary and tertiary education, especially if the curriculum includes training in tourism, information technology and agriculture (including fisheries) and other areas where future employment prospects will be enhanced. New courses in schools in these subjects could be linked to similar programs in COM-FSM offering a vocational stream between secondary school and higher education.

The goal of a vocational training system is to provide FSM with a competent middle-level workforce to meet the demand for vocational skills from employers or to encourage an individual's self-employment through starting-up their own business.

Vocational training programs at secondary level have not been successful to date in generating such work-ready graduates. The proposed National Qualifications Framework (NQF) published in March 2019[6] (but not yet promulgated for use) could provide an incentive to curriculum developers, potential students and employers to support new programs where a qualification can be obtained after 2 or 3 years of study.

The implementation of the NQF could also provide employers with a greater level of confidence in the skills and abilities of school completers and TVET program graduates as potential employees. The framework will also provide better defined entry points and pathways for students at all levels.

Once fully developed, it is:

> *'expected to clearly articulate the learning outcomes for each stream of education, at each level, establishing the knowledge, skills and competencies that successful learners will be expected to have gained and to possess when completing each level. The NQF will provide the guidance necessary to align curricula, teacher training and performance, teaching-*

[6] NDOE, National Qualifications Framework (draft), March 2019

learning materials and equipment, and assessment so that they are mutually reinforcing to support the achievement of the qualifications.'

(NQF, page 15)

2.2.5. Non-formal education (NFE)

A substantial number of children, particularly of secondary-age population is out-of-school. The following data table illustrates this fact:

Table 3: FSM Out-Of-School Children

	Male	Female	ECE	Elementary	Secondary	Total
2013	1,780	1,841	386	234	3,001	**3,621**
2014	1,511	1,527	308	N/A	2,900	**3,038**
2015	1,612	1,786	N/A	571	2,792	**3,398**
2016	1,354	1,383	320	29	2,388	**2,737**
2017	1,835	1,769	148	338	3,118	**3,604**
2018	1,681	1,399	146	98	2,836	**3,080**

Source: (Education Data Digest [FedEMIS], 2017 – 18, Table 13, p 41)

Table 4: OOS Children as proportion of all school-aged children

	% ECE	% Ele	% Sec	Total
2013	17%	1%	30%	7%
2014	13%	N/A	30%	7%
2015	1%	3%	29%	8%
2016	14%	0%	25%	7%
2017	6%	2%	33%	8%
2018	7%	1%	31%	7%

Therefore a new and more attractive system is needed to entice students back into school and offer new career paths leading to rewarding employment. At the same time, school may not be an option for older school leavers or for those who for various reasons are unable to attend any formal school system. These learners need to be offered alternative pathways in education and training through a non-formal education system (NFE). NFE has immediate application as a mechanism by which persons who may have dropped out of formal schooling can re-enter an alternative learning system that is designed to provide life-long learning opportunities. In most cases the participants are adult learners who are seeking flexible learning arrangements to allow them to undertake study in a less-formal setting, such as their own home or a community center. The advent of an NQF as described above provides a system that recognizes prior learning experiences of such individuals and that also includes bridges and ladders that permit learners to access other avenues of continuous learning.

Although NFE can cater to people of all ages, it does not necessarily have a continuous pathway and may be short in duration and/or low intensity, typically being provided in the form of short courses, workshops or seminars. NFE can cover programs contributing to adult and youth literacy and education for out-of-school children, as well as programs on life skills, work skills, and social or cultural development. There is potential to explore strategies for delivering alternative teaching

and learning programs to a variety of populations: for example, learners in isolated communities who are unable to travel large distances to access formal schooling; persons who have dropped-out of formal education and/or mature-age learners who wish to gain additional qualifications whether already employed or not.

There are a number of alternative delivery modes that can be used to provide such alternative learning systems such as 'distance-learning using information technology', 'extended schools or school annexes', 'mobile schools' or using school premises for evening classes. The widely dispersed island communities of FSM could benefit greatly from such innovative learning systems since it is economically inefficient to provide a formal school structure with staffing and materials for every isolated community.

2.3. Development of the Education Sector Strategic Development Plan (ESSDP)

There are several stages in preparing a new sector plan, and the first step undertaken was to conduct a national sector analysis that gathered important data about enrolment, attendance, quality of teaching and learning, student-teacher ratios, budgets and school resource materials. The process of preparing a sector analysis also provided important capacity development for those engaged in its preparation, promoting greater harmonization and synchronization between the states and reducing fragmentation. An initial sector analysis was carried out in 2016–17 and the report was published in July 2017. An updated sector analysis was undertaken during 2019 and the complete final report is attached as Annex 1. This report provides important evidence-based data that is used in the preparation of this ESSDP for 2020–2024.

Another important consideration noted earlier is the need for the ESSDP to be aligned with SDG4 and the PacREF. Both PacREF and SDG4 have very similar objectives and the ESSDP is aligned with them in its emphasis on promoting quality of education outcomes.

The major findings in terms of challenges and issues to be addressed through this ESSDP are summarized in each 'Rationale' subsection in Chapter 3.

The ESSDP is an aspirational plan that captures the vision of FSM's educational leaders and the broader community. The total cost of the plan reaches nearly $50 million USD, with a projected funding gap of about $38 million USD. The successful implementation of this plan requires significant partnerships that can lead to increased financial resources available to the education sector.

2.4. Review of Sector Performance

The value of a sector analysis is in its reporting of objective data that can be used to indicate the status of an education system. This means that information-based decision-making can then be undertaken by education administrators and planners. The sector analysis revealed several strengths, weaknesses, challenges and issues for the education sector, and these are discussed here using the following six guiding principles as a basis for analysis:

Access and equity: the opportunity to obtain access to education and learning in an environment that treats all individuals fairly and justly in the provision of services and opportunities.

The highly dispersed population of FSM across wide distances presents issues in the provision of services, but FSM nevertheless succeeds in providing schooling accessible to majority of students of all ages:

Table 5: Net Enrolment Rate by Year and Stage of Education

	ECE	Elementary	Secondary	Total
2013	63%	87%	52%	74%
2014	68%	90%	53%	76%
2015	75%	87%	54%	76%
2016	67%	91%	57%	78%
2017	69%	90%	52%	76%
2018	57%	91%	56%	77%

Source: (FSM ESA)

There are special provisions for ECE in all 4 states as discussed earlier. The gender balance for school attendance numbers is remarkably even, although there is now increasing evidence that boys of secondary school age are dis-engaging with school in increasing numbers compared to girls. Summary data is shown below under 'gender':

Although all schools in FSM are inclusive, there are issues regarding the access of students with disabilities to CTE programs mainly due to facilities' equipment not being designed for their use.

Quality: the achievement of high-level standards, cultural understanding and acceptable social behavior throughout the community.

Low student learning outcomes are an issue for all sectors and can be partly attributed to low quality of teaching from unqualified teachers.[7] Though there is a formal teacher training programme available at the COM-FSM and some training provided during the MTEC conference every year, many teachers still remain unqualified and in need of much more substantial capacity development than can be reasonably offered by a single annual teacher conference. Furthermore, low salary scales and absence of a career structure have also demotivated teachers from being committed to high standards of performance. The lack of modern and attractive learning resources such as textbooks, equipment and on-line options for learning further impacts on the quality of student learning outcomes. Facilities in schools are also lacking, particularly in the provision of science laboratories and equipment and the outdated nature of TVET facilities and equipment in secondary schools

Relevance: learning opportunities, including skills development, which are meaningful and responsive to individual, community and national development needs.

Questions of relevance are most pertinent when considering the range of school curriculum offerings at secondary level. Students who cannot gain entry to the academic track or who cannot cope with the level of learning have few options to choose another pathway such as vocational and livelihood subjects that are not well-developed and have theory-based curriculum content since provision of equipment requires substantial budgets to both provide and sustain. Pre-secondary education has also had limited focus on life skills and job skills development, both of which could significantly contribute to making education relevant for the people of FSM.

[7] Whilst c. 93% of teachers have the required qualification, only 32% of them have also acquired a teaching certificate

Efficiency and effectiveness: management of all resources that ensures value for money to achieve desired goals.

In the FSM environment with limited and uncertain fiscal resources, it is essential that managers gain maximum value for all spending and where possible they avoid duplication of service provision between the national and state administrations. While it is important for each state to retain local identity and some level of autonomy, there are increased benefits to be derived from working collaboratively with each other where possible to maximize economies of scale, and the national ESSDP is designed with this factor in mind. Additional coordination and collaboration will also be increasingly important vis-à-vis the growing risks and issues relating to disasters, climate change and Covid-19. A risk-informed education programme, helping to build a federation-wide DRR capability would help FSM address some of these challenges in the long-run.

Partnerships: recognizes the value of strong and healthy partnerships with all school communities and national and international stakeholders.

School communities in modern societies typically play a much greater role in all aspects of schooling and especially where more management decisions are devolved from the center to the school with the increasing trend towards school-based management. In those cases, it is normally the responsibility of the school principal and other school leaders to foster a more active role for community personnel, and to encourage greater input of a wide range of ideas. FSM must review and formalize its own approach to fostering partnerships at the school level to ensure better community resourcing and locally-appropriate interventions.

Sustainability: manage and utilize human, financial and material resources to ensure efficient services and coordinated decision-making are maintained throughout the implementation of the sector plan.

Regular reviews of progress and adjustments made mid-stream are essential to maintain program functions. Provision of a strong monitoring plan that provides evidence of progress (or lack of it) ensures that the plan is responsive to changing circumstances and can be sustained through the duration of its implementation.

With these factors in mind, some of the major issues that are affecting the overall performance outcomes of the FSM education sector are as follows:

2.4.1. Population effects

An important demographic issue for FSM is a declining population across the country. The population decreased by around 4% between the most recent census dates (2000, 2010) and is now around 105,000. Almost half of the population (48%) reside in Chuuk State, and the age-based data shows that around 50% of the population in FSM is younger than 21.5 years. The sector analysis[8] also showed that the continuing outmigration of population from FSM to other countries causes a national average reduction in the school-age population of nearly 1% per year so that in the period between 2012–2018 the total number of students enrolled in the FSM education system has been decreasing. There has been some growth in the numbers of students at the ECE level and little change in the number at junior elementary level, but the overall drift towards declining numbers is an important trend.

[8] See Annex 1. Education Sector Analysis, Pohnpei, 2019, Table 7

The data for the Gross Enrolment Rate (GER) and Net Enrolment Rate (NER) show these trends between 2015 and 2018. In 2018, the GER for ECE was 93%; for elementary 99% and for secondary 69%. The NER figures are below 60% for ECE and secondary, but over 90% for elementary (see Table 6 below).

Table 6: Gross Enrolment Rates and Net Enrolment Rates for FSM

Year	GER				NER			
	Σ	ECE	Ele	Sec	Σ	ECE	Ele	Sec
2015	89%	99%	97%	71%	76%	75%	87%	54%
2018	90%	93%	99%	69%	77%	57%	91%	56%

The data represents a concerning finding that overall, 23%, or nearly one quarter, of FSM children at school age are not in school or at least not in their age-appropriate grade. This situation is not so acute at elementary level, but at least 40% of ECE and secondary age students are not enrolled at school. For ECE, the difference between GER and NER is quite marked, and this can be interpreted as being due to higher numbers of both overaged and underaged students at the ECE level.

The provision of educational services to smaller outer islands or those on the periphery of the main islands with smaller populations is frequently a costly operation because of the small population of students attending these schools. There is also wide variation in the size of schools in the populated towns. The average sized student population for FSM schools is between 100 to 200 students, but two schools (1 each from Chuuk and Pohnpei) have more than 1,000 students. Chuuk has the largest number of schools (79 or 43%) with Kosrae having only 8 (4%). This means that the national student-teacher ratio appears quite low and the overall picture suggests that there are sufficient numbers of teachers. However, the ratio is extremely low in some remote, rural schools, while it is quite high in urban areas. Small numbers of students raise the likelihood that an increased number of schools will have multi- grade classrooms. Because of the widely-dispersed schools and the fluctuations in numbers of students, an important factor for effective data analysis and forward planning is the introduction of a national system for the identification and tracking of individual students who transfer states, migrate out-of-country or who drop out or are at risk of dropping-out.

2.4.2. Gender balance

School enrolments show that the numbers of male and female students enrolled in schooling are equivalent with very slight variation. There does not appear to be a gender factor affecting school enrolment at elementary level, although there is some emerging evidence that female students are performing better than males at upper secondary level.

Table 7: FSM gender disaggregation data

Level	Total	Males	Females
ECE	2,087	1,070 (51%)	1,017 (49%)
Elementary	18,204	9,385 (51.4%)	8,888 (48.6%)
Secondary	6,354	3,162	3,233

		(49.4%)	(50.6%)
TOTAL	**26,645**	**13,625** **51%**	**13,148** **49%**

At the higher education level, the disaggregated COMET results for 2018–2019 show that although there has not been any significant change in total numbers of students sitting for the COMET, there has been a clear increase in the number of female students seeking to enroll in higher education. As reported earlier, in 2018 there were 784 female applicants admitted compared to 721 male applicants.

2.4.3. Linguistic diversity

The national literacy rate is reported to be around 90% (mean) across FSM.[9] Although English is the official language used in FSM, it is the second language in each state with less than 2% of FSM students having English as the first language. Beyond the lower grades, English is the medium of instruction in schools and the main language for all national government business. It is also used commonly as the language of general communication in all spheres of life wherever the speakers do not share a common vernacular. The English literacy level across all of FSM is 75.9% but larger populations in some states (for example, Chuuk) that have lower levels tend to skew the result. There are numerous vernacular languages spoken across the four states, and the national language policy for education means these vernacular languages are to be used as the main language of instruction in the early years of education up to the end of grade 3. English is phased-in as the medium of instruction during grade 4. Despite its common use in schooling, English skills are weak among much of the population, including amongst teachers.[10]

There is a published FSM national language policy from 1997, which outlined key principles to be followed, but each state was expected to develop its own implementation plan. The fact that this has not happened to date has led to considerable uncertainty among SDOEs and teachers about language policies and practice to be applied in classrooms at various levels. Policy development initiatives in recent years in Pohnpei, and currently in Kosrae, should help resolve this. However, there is also concern that not only do teachers themselves lack key skills in local language and English competency, they also are untrained in the pedagogies required for effective first and second language teaching in a bilingual or multilingual context.

2.4.4. Out-of-school students and drop-out rates

As reported earlier, 40% of ECE and secondary age students are not enrolled at school. Trend data is showing that the numbers of out-of-school children at the ECE level are declining steadily as more ECE children attend school, but the numbers at secondary level show only a small reduction. Graduation rates show that a high percentage of students who begin grade 1 go on to enter grade 8 (93% F; 83% M). This is mostly because school attendance is compulsory until the end of grade 8 (or 14 years of age). However, the graduation rate for secondary level is only around 56% (57% F; 54% M).[11] This means that an estimation of over 40% of students who begin at grade 9 drop-out from school before grade 12. More young males drop out of school at secondary level than females. An additional concern is the reported high rate of absenteeism of enrolled

[9] Among persons aged 5 years and over, literacy defined as: 'ability to read, write and understand a simple sentence in any language'
[10] South Pacific Board of Educational Assessment (2010). Millennium Development Goals & The Federated States of Micronesia: Status report (2010). Palikir: FSM Office of Statistics, Budget and Economic Management, ODA and COFA Management
[11] NDOE, Education Data Digest 2017-2018, p. 36

secondary students which heightens the need for research into why so many young people are reluctant school attenders. It is apparent that school is not seen as an interesting or enjoyable experience, nor is secondary school perceived as relevant in preparing these young people for the work force. The available data on enrolment and drop- out rates do not yet allow reliable analysis on where those students who are not in school or who are dropping out reside (whether in towns or in rural and remote areas), whether or not they come from economically disadvantaged households, or whether they have disabilities or learning difficulties. It is important that more research needs to be undertaken within FSM to gather data about drop-outs and OOSC including increasing gender differences, and whether enhancing options for vocational training at secondary level will lead to more students remaining in school.

2.4.5. Students with disabilities (special learning needs)

Special education and related services are available primary at public schools. At private schools, the available special education and related services are based on a consultative process with private school administrators and parents of children with disabilities and a determination of a proportinate amount of funds that can be made available to one private school with the prioritized disability manifested in one or more children in that private school.

Inclusiveness means that all students regardless of disability or from disadvantaged backgrounds are admitted into regular mainstream education and treated in an equitable way.

Additional resources are required to allow students better access to the general education curriculum, foster the quality of school leaders and teachers and to build an accessible school environment.

In the FSM, inclusion is the primary education model to meet the needs of children with disabilities. The Education Digest for 2017– 18[12] reported that 95% of students with disabilities were placed in regular schools. The remaining 5% were either at home or in a special education school center (such as in Kosrae which has a special day-school). Special Education data reported in 2016–17 showed that for each state there were twice as many male students as female students listed with some form of disability. While the reasons for this difference in numbers are not known, it is likely tied to the biases within the Individuals with Disabilities Education Act (IDEA), the U.S. federal law which provides the funding and policy framework for children with disabilities in the FSM. There is a similar trend of gender disparity in the United States among children diagnosed with disabilities.

Persistence Rate of Children with Disabilities

	2017	2018	2019
Persist from 8th grade into Secondary School	93%	78%	83%
Graduate from secondary school	63%	57%	64%

[12] FSM Education Data Digest 2018, SY 2017–18, p. 121

Enrolled in TVET program within 1 year of secondary graduation	5.45%	1.45%	N/A

Students with disabilities are under-represented in the vocational programs in FSM. It is essential that greater provision is made for these students (male and female) in the TVET programs that will be devised under the new ESSDP.

The COM-FSM teacher training program contains only minor units in the current curriculum that deal with special education, and so student teachers lack more specialized training in dealing with the variety of specific learning or other disabilities that they might encounter when they commence teaching. Increased time within specific units of instruction during the current teacher training program is needed. A new bachelor's program was introduced at COM-FSM in August 2019, which offers 7 courses designed to support Inclusive Education.

2.4.6. Quality of learning

Whether students are learning, and how they are learning is an essential determinant of the quality of an education system. There are various ways of doing this including national examinations, sample-based assessments and the everyday classroom assessment practices used by teachers.

In FSM, the annual National Minimum Competency Test (NMCT) is used across the nation to assess the levels of student learning. This is a standards-based assessment tool that is used to measure students' ability to meet the standards and benchmarks in Language Arts (literacy) and Numeracy (mathematics). The test is administered at grades 6, 8 and 10 for literacy, and grades 4, 6, 8 and 10 for numeracy. Initial baseline data was set in SY 2014–2015 with a 2% target increase in the standard to be achieved in each of the following years. For the new ESSDP, a new baseline has been set as the performance recorded on the NMCT for 2018- 2019.

Reading (Literacy): The NMCT data for Reading (used as an indicator for literacy levels) for grade 6, grade 8 and grade 10 for the period SY 2014–15 to SY 2017–18 shows that more than 50% of the reading benchmarks are not being met. The percentage is lowest at grade 6, slightly improved at grade 8 and the target is exceeded at grade 10. This data is consistent with the Sustainable Development Goals (SDG4) global data that indicates around 58% of minimum proficiency levels for reading are not being met. The FSM data suggests that better strategies are needed at the elementary level to improve reading competence.[13] It can be theorized that the improved literacy levels at grade 10 might be attributed to the narrowed pool of test-takers. At this level, only students who passed the high school entrance exam are assessed, which represents a higher-achieving subset of learners than the pool of test-takers who are assessed through Grade 8. It also could be attributed tothe requirement for literacy competence when interacting with social media and other technologies that demands frequent reading and comprehension. These demands increase as students move into higher grades with the increased access to internet resources for secondary students.

Numeracy (Mathematics): The NMCT data for Numeracy (used as an indicator for mathematics skill) for grades 4, 6, 8 and 10 for the period SY 2014–15 to SY 2017–18) shows that numeracy competence across FSM is poor and below expectations. 33% of the benchmark targets at grade 4 are met but at grade 6 the level has remained below 30%. Grade 8 mathematics

[13] The data also likely reflects the fact that grade 6 assessment is the first undertaken by most children in English as opposed to their vernacular. Strategies aimed at addressing this transition as well as teachers' competence as teachers of second language may also be required.

performance has been poor, and the target benchmarks have not been reached in any year; grade 10 shows a further decline and in SY 2017–18 the percentage reaching the benchmark was around 3% lower than the base-line score of 2014–15 which means the standards have slipped further. It is worth noting that there have been signficiant improvements in student performance at Grade 4 and 6 over the last several years and that student achievement has basically remained flat at Grades 8 and 10. There may need to be a re-consideration of the targets, but it is important to note that at all levels except grade 4 less than 30% of the benchmarks have been reached which is a cause for concern (for detailed results see Table 1 and Table 2).

The lower performance in mathematics in both elementary and secondary schools' points to an issue with the quality of teaching. Declining performance at the secondary school might be attributable to the lack of qualified mathematics teachers with the required higher-order mathematics skills who are able to not only teach these subjects but also inspire students to pursue mathematics to higher levels. The cost of providing better learning materials that are attractive for students to use is also an issue and alternative ways to source low-cost learning materials needs to be found.

The assessment data collected across all 4 states and collated within the NDOE should be used to inform policy and practice. There is limited research capacity to analyze this national data and to propose alternative learning approaches that might improve the learning outcomes. More evidence is needed on good practices in classroom-based assessment, as well as an understanding of how to build expertise in learning assessment in a cost-efficient and sustainable manner. The ESSDP needs to provide for better research capabilities within the national and state departments, and to promote the use by teachers of diagnostic assessment that can provide feedback to students about how to improve their learning. FSM is beginning to address this issue by providing classroom assessment training for teachers under the *Improving the Quality of Basic Education (IQBE)* project.

2.4.7. Quality of teaching

Teaching quality refers to the level of instruction that enables a wide range of students to learn material that is assessed through standardized assessments and other associated schooling and life outcomes. Assessing the quality of teaching always depends on the quality of student learning outcomes because the two factors are inextricably linked. Focusing on **teacher** quality is an interim step towards focusing on **teaching** quality, and in FSM a simple indicator is obtained by compiling the number of teachers who have at least an Associate Degree (Associate of Arts; Associate of Science; Associate of Applied Science). An Associate Degree is considered as the minimum qualification to teach in the system, and the Education Act (Title 40) requires individuals teaching in FSM schools to have also passed the National Standardized Test for Teachers (NSTT). Although 1,577 of 1,748 teachers (90%) possess the associate degree minimum qualifications to teach, only 614 (35%) also hold the NSTT and are certified to teach. The remaining 65% remain employed because the demand for teachers exceeds the supply of those who have the required certificates; most of these have not yet taken the test since it was only introduced in 2019 and it has been rolled out in phases across the states. This simple indicator of relative number of certified teachers in a system is not a reliable way to judge the quality of a teaching force, and other indicators, such as robust teacher appraisal schemes and the standard of student learning outcomes must also be used to measure the quality of teaching. The ESSDP will seek to increase the number of teachers passing the NSTT although higher numbers of teachers with the certification does not necessarily correlate with improved teaching unless additional professional development is also provided in a coordinated and systematic manner.

Another important factor related to teacher qualification is the content background that each teacher brings to the classroom. In secondary schools that have a CTE program, there are few specialist CTE teachers so that many teaching staff (male and female) are expected to take responsibility for teaching at least one TVET subject per week covering both theory and practice, but the lack of facilities means that such teaching is usually theoretical only with no practical application. There are also teachers working in the science and mathematics areas who don't have specialist training in these areas. Similarly, in the absence of sufficient laboratory facilities for the effective delivery of a competency-based science curriculum, most students will graduate from science classes without having experienced any substantial practical work in a laboratory. However, there are significant opportunities for place-based scientific learning that use the local environment as living laboratories.

2.4.7.1. In-service teacher training for teachers

Improving the provision of in-service training (professional development) for teachers is an effective and efficient strategy for raising the quality of teaching. Standard 2 of the school accreditation system (SAS) in FSM requires judgement to be made by school leadership, about the competence of teachers in the school. The results of Standard 2 in the accreditation process is used to identify teachers' needs at both individual and school levels. In service programs are provided that are linked to these needs, such as during the annual MTEC. FSM is addressing this issue by providing in-service training for teachers under the IQBE project.

2.4.7.2. Inadequate learning resource materials for teachers and students

There is a lack of adequate learning and teaching materials (textbooks, reading materials, worksheets and equipment) in classrooms. This is compounded by the extreme shortage of commercially available learning materials in vernacular languages. To date there is little evidence of on-line resources being used by teachers.. The issue is significantly restricted by the fact that some teachers in FSM still teach in schools without a reliable electricity source, let alone internet access. Major infrastructure programmes need to precede the effective integration of online and other electronic learning materials.

2.4.7.3. Pre-service teacher training

A new program, the Bachelor of Science Degree Program in Elementary Education, has been offered by the COM-FSM since 2019 for students who wish to become elementary teachers (and who pass the COMET). Despite the low salaries and perceived difficult working conditions, there is still a steady supply of new teachers entering the teaching service, but they often lack a readiness to work in FSM schools without experienced teachers' support. For example, new graduates are mostly unprepared to teach multi-grade classes, or to implement effective bilingual literacy strategies. In FSM, teacher attrition occurs mostly during the early years of teaching which indicates that a mentoring program for new teachers that is conducted by experienced teachers within each school is essential.

2.5. Causal Analysis

The broad issues listed in the preceding section summarized from the 2019 sector analysis can be expanded further to a list of issues that need to be addressed in the new sector plan so that improvement in student learning outcomes will take place. These issues need to be prioritized and gradually addressed during the sector plan implementation when funds are available.

2.5.1. Weak capacity to analyze, interpret and use data

The NDOE and state DOEs do not have a sector research strategy, or capacity in sector wide research, policy and development planning. Many of the issues listed below, such as secondary dropouts with more boys dropping out than girls, availability of resource materials etc. need to be researched further and evidence collected to provide data to support a proper analysis of an issue. Without an adequate data-base, there is a likelihood of duplication of resource allocations, since there is no sector wide resourcing policy that links resources with student learning outcomes. There is weak monitoring and evaluation across the sector as a result.

The preparation of the FSM Education Data Digest 2018 was a positive step towards making system-wide education-related data more readily available through an enhanced FSM Education Management Information System (FedEMIS). However, weaknesses remain in the interpretation and use of student assessment information, such as the data from NMCT and PILNA, and in using that data to improve student performance levels.

2.5.2. Attracting, retaining and developing effective teachers

A significant number of teachers are not certified despite government regulations requiring it, nor have they received comprehensive, regular and planned on-going professional development support in recent years to ensure they have the content, pedagogical and assessment knowledge needed to implement effective programs. This results in a perceived lack of commitment and low morale, and hence low motivation to teach effectively.

2.5.3. In-service teacher training for teachers and school leaders

There is inadequate coordinated in-service teacher training program for teachers and school leaders.The annual Micronesia Teacher Education Conference (MTEC), provides opportunities for teachers to receive training in a range of areas, which have been prioritized as needs through the SAS or other feedback mechanisms within the SDOE/NDOE.. It is expected that improved and continuing in-service training (also called professional learning or continuing professional development) will occur through a National Professional Learning Framework being developed for implementation under the IQBE project. In-service teacher training for teachers and school principals needs to remain as a key focus under the ESSDP along with renewed attention to the certification of teachers. Recognizing teachers who perform in exemplary ways for some form of reward or incentive scheme linked to professional development might also be worth consideration.

2.5.4. Effective school leadership

Principals and other school leaders are frequently required by the demands of running a school to prioritize their role as **administrative leaders** over their important role as **instructional leaders of learning** in their school. They need on-going professional development of their leadership and human resource management skills.

2.5.5. Vernacular and English language

The school curriculum calls for a bilingual approach, but teachers have received insufficient training in bilingual teaching to cope with the diversity of languages. The current policy does not require English as medium of instruction (EMI) at ECE and lower elementary levels, but

inadequate planning of language and instructional continuity has made the introduction of English as the second language during later years more problematic, and has likely undermined test performance on EMI assessments. It also limits the availability of resource materials to support teachers and students in the early grades. As noted, FSM states have not clearly articulated their language-in-education policies that provide adequate guidance for teachers and school communities. Further, it is important that teacher training in the area of language education and language pedagogy includes appropriate training required for bilingual approaches.

2.5.6. Curriculum

The teaching of languages in the curriculum has presented challenges for teaching and learning. Curricula intended for early years and up to grade 2 contain limited guidance and materials for Vernacular Language Arts (VLA) and no standardized assessment for associated skills and knowledge. Orthography training is lacking for teachers within the inadequate overall language policy. There are insufficient reading materials for the English Language Arts (ELA) and VLA for ECE to grade 2. There is funding available to develop local learning materials for literacy and numeracy through the IQBE project. There are few centralized resource repositories for sharing materials. Student learning outcomes for some curriculum areas are not yet fully developed and all state mathematics curriculum statements need to be updated and revised to be in alignment with the national curriculum. There is a need to expand the National Curriculum Benchmarks to include science, social studies and a few specific grade levels of ELA, VLA, and mathematics, in addition to vocational traininng at the secondary level.

2.5.7. School resourcing

While there has been significant investment in school construction with the support of Compact funding, classroom environments are sometimes not conducive to optimal learning due to inadequate infrastructure, purpose-specific facilities (such as science laboratories, vocational training workshops, kitchens etc.) and teaching and learning resource materials (books, equipment) for access by all students and teachers across all school levels. Resourcing of school facilities across all subjects (other than literacy and numeracy- based areas) will require separate states-based planning to undertake extensive building programs. The increased availability of new and attractive learning resources on-line, particularly in applications like YouTube but also on other sites presents exciting opportunities for teachers. However, it also requires electricity and internet access which in turn requires computer terminals, adequate data subscriptions, as well as licensing of materials– all of which require significant infrastructure upgrades across the FSM.

2.5.8. Parent and community engagement in education

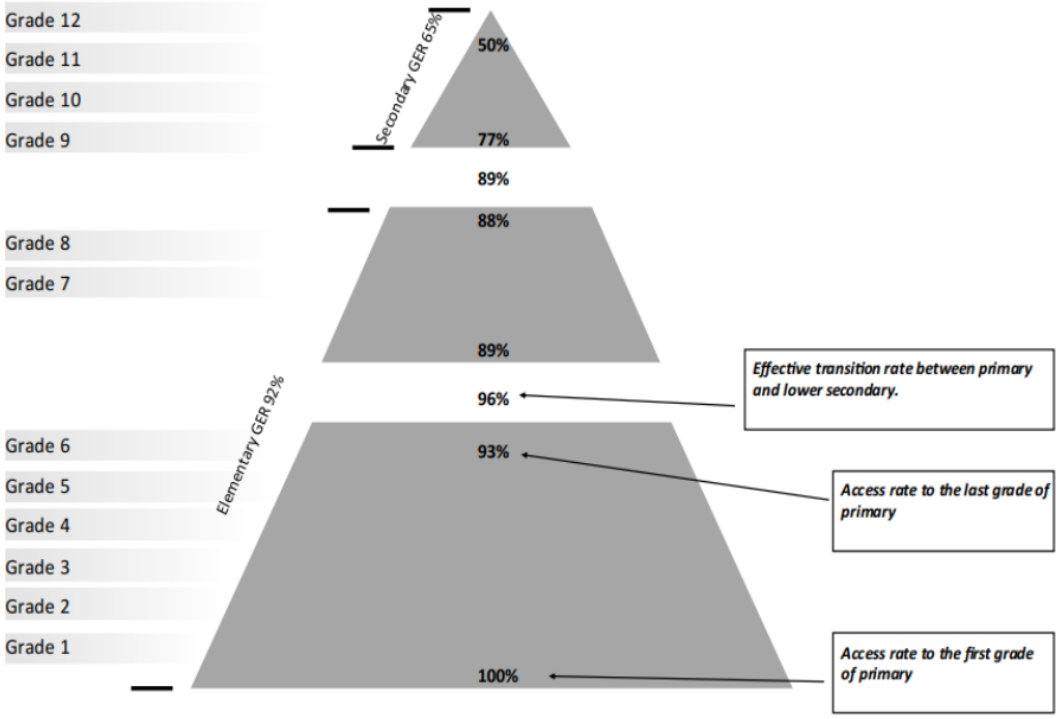
Throughout the many cultures of the FSM, all believe there is no better teacher than a parent. Educational leaders assert that the first teacher is the parent and that the classroom teachers and other school staff are in the role of "second teacher". The extent to which school committees, parent-teacher associations or private school boards are coordinating with their communities is variable. Parents and the community in general seem to feel comfortable delegating the responsibility of formal education to the schools. They seem reluctant to assist with improving academic outcomes. The traditional Parent-Teacher Association (PTA) structure could be expanded to a more formal structure that is representative of the community served by the school and that has a role in the organization of the school program. School Improvement Plans (SIP) are a good vehicle for promotion of collaboration between school principals, teachers, parents, students and other community people engaged with the school. The expansion (or introduction)

of school feeding programs is another potential vehicle for generating greater parent engagement since meal preparation requires volunteer labor to offset the costs involved in such programs.

2.5.9. Drop-out rates at the secondary level

Data related to school attendance in FSM shows that attendance up to grade 8 is relatively high but then drop-out rates at the transition between elementary and secondary levels (years 8 to 9) and during the secondary school years increase substantially, likely due to compulsory education ending at Grade 8 and the need to earn a passing score on the high school entrance exam to continue to Grade 9. Boys are dropping out at a higher rate than girls as they progress through secondary school, and fewer boys than girls are both enrolling for and passing the COMET for higher education study at COM-FSM. This data is documented in the Education sector analysis (Annex 1), and summarized in the Education Pyramid below:

Figure 2: Education Pyramid of Enrolment and Transition Rates



Source: (FSM ESA)

2.5.10. Low relevance of post-secondary education to FSM population and economy

The current secondary school curriculum prioritizes the more academic stream towards entrance to tertiary study rather than seeking enhanced training pathways that will lead to employment possibilities in FSM or within the region. Facilities for vocational pathway training are poor or non-existent. This constitutes a major opportunity for FSM to consider providing additional pathways to learning, and the ESSDP will enhance the relevance of school to providing better and more relevant skill development and career options.

2.5.11. Linkages between vocational and other post-school programs and the employment needs of industries and professions

There is no data in FSM records about the relevance of vocational programs to the national economic, cultural and social development needs across the country. Employers and industries need to be consulted more closely about their requirements so that policy makers can be better informed about needs. Links between training programs needed and potential funding support for new and enhanced programs and facilities can be formed and potential programs implemented. Provision for vocational training will be included in the new ESSDP mainly through the development of a 'dual TVET' system. The dual system combines education and training in a formal school setting with work experience and formal apprenticeships undertaken in private sector companies, which will require significant new collaboration between government and industry. The education (or theory) component may be offered within a school established specifically for it or delivered as a stream within the existing secondary school structure. The latter option is attractive because some of the general academic classes taken by the vocational program students overlap with those taken by other secondary students in alternative streams so there are opportunities for students to move between streams if their preferences change. Other trade-specific theory courses will need to be developed.

Dual TVET programs are well-established in many western countries but not so strongly in the Pacific region, perhaps due to the comparatively higher unemployment rates among adult populations, which reduces the incentive for industry to invest the time, effort, and expense in such programs when inexepnsive adult labor is abundant. Such programs have the potential, though, to greatly build capacity to meet identified human resource needs in both the private and public sectors. They are also proven to help tackle high rates of youth unemployment and enable more school leavers to enter the job market, in non-Pacific settings.

For a dual system to function well, there needs to be a high level of engagement and coordination between the public education programs and commercial and industrial sectors. Training and even budgetary support may need to be provided to companies and workplaces where trainee apprentices will be gaining practical experience and skills for a specified number of days each week. It is common for trainees to be paid a certain percentage of the minimum wage for the job they are learning. The Chambers of Commerce in FSM have already signaled their strong interest and support to collaborate with NDOE in developing a dual TVET education program.

2.6. Theory of Change (ToC)

The causal analysis in the preceding discussion highlights where change in a given context must occur and implies what might be the ongoing roles that individuals and organizations can play. The difficulty in developing a meaningful ToC for this ESSDP occurs because it covers an expansive education sector, which is the shared responsibility of NDOE, SDOE, COM-FSM, Scholarship Office, and others. Despite this somewhat complicated collaborative system—and the sometimes tense and confusing lines of authority and responsibility between these entities--an attempt has been made to include a ToC for this ESSDP, and it appears on the following page.

Impact

All learners are equipped with the skills and competencies that will make them functional citizens who can contribute to the national goal of FSM.

(Improved student learning, outcomes, particularly in literacy and numeracy, at all levels and with increased numbers of students, including those with SEN, attending schools.)

Goals

High Quality Relevant Programs are Provided

Improve the Quality of Teachers and Teaching at All Levels

Maintain Consistent Performance Monitoring and Data Based Decision-Making Systems

Strengthen the Participation of Communities in the Management of Schools

Ensure that Education is Relevant to the Life and Aspirations of the People of FSM

Outcomes (WHAT)

Improved student learning outcomes, particularly in literacy and numeracy, at all levels with increased numbers of students, including those with special needs, attending school and experiencing quality educational opportunities	Competent, qualified and certified teachers and school leaders who can demonstrate their competencies against approved standards and are supported through opportunities for continuous professional development in their knowledge and practice	Evaluations and monitoring evidence along with enhanced research findings are included in an integrated database that is regularly updated and used by decision-makers to inform policy and planning across the sector	A coordinated approach through effective partnerships with key community stakeholders at all levels ensuring all policies contribute to improved quality of educational provision across the sector	Increased student and faculty success in the educational system, which is designed to sustain the social and cultural foundations of the FSM, and improve the employability of school leavers

Strategies (HOW)

• Expand VLA national curriculum standards and benchmarks document for ECE to Grade 12	• Certify classroom teachers • Establish NDOE central unit to	• Increase capacity of NDOE to utilize evidence-based planning, policy and research	• Modify existing Parent-Teacher Associations (PTA) with expanded membership more	• School-based DRR policy developed and implemented • Establish a joint working committee (members

• Expand ELA national curriculum standards and benchmarks documents for ECE to Grade12 • Expland National Curriuclum Benchmarks to include science and social studies, from ECE to Grade 12. • Develop and/or adopt low cost versions of learning materials to support language learning (vernacular and English) for from ECE to Grade 12 in all elementary schools • Improve test results showing increased proficiency levels in reading (disaggregated by gender) as measured on annual NMCT Literacy tests for grades 6, 8 and 10 • Introduce creative approaches and	coordinate all CPD programs in FSM • Establish sub-units linked to the national unit in each SDOE to administer CPD activity in each state and report data to central unit • Determine a minimum number of hours of in-service teacher training for all teachers as a mandatory requirement for continued teacher certification assessed over 5-year intervals • School leaders determine prioritized list of school-based needs for in-service training based on the SAS standard 2 report for their school • All schools (elementary and secondary) conduct school based in-service programs according to their prioritized list of needs. Resource	• Include additional data fields for the FedEMIS to enhance the breadth and usefulness of the full dataset to meet the requirements of the SDG4. • Conduct training programs in each SDOE as required to build capacity of staff to collect data, encode it accurately and report it to the school leader. • Train school leaders in gathering and recording accurate data and reporting it to SDOE data analysis group • Conduct training prgrammes to NDOE on web-page development and build capacity of each SDOE to develop and maintain web pages that are kept current and used as an active communication tool	representative of the whole school community • School leaders are pro-active in encouraging parents and other school community personnel to attend PTA meetings and assist with preparation of the school improvement plan (SIP) • School stakeholders receive regular updates about school activities from school leaders, through circulars or personal communication • Community members and parents freely volunteer services to assist with school activities • School feeding programs are re-introduced to elementary schools • Community members, parents and teachers all contribute to the extra-curricular program	from the COM-FSM, Chamber of Commerce, TVET specialists and NDOE/SDOE Specialist) to oversee the TVET programs. • Develop a list of skill shortages in FSM industries and workplaces • Develop and conduct pilot programs to address skill shortages. • Develop a dual TVET program and introduce it in collaboration with secondary-schools, COM-FSM, Chamber of Commerce, Business Industry and N/SDOE. • Ensure infrastructure to support TVET programs is in place • Formaulate dual VET policy for secondary schools

materials for teaching numeracy from ECE to Grade-12 • Improve performance on NMCT Numeracy tests for grades 4, 6, 8 and 10 to meet at least baseline targets set in 2018-19. • Develop and implement assessment guides for teachers that assist with understanding assessment strategies, especially in VLA. • Establish regular meeting between NDOE and SDOE curriculum specialists at ECE, elementary and secondary level with COM-FSM faculty twice per year •	persons to provide training are sourced externally or from within schools. • Introduce additional units in Special Education by COM-FSM as a mandatory component of teacher education pre-service programs (elementary and secondary) • Collaborate with COM-FSM to determine an appropriate training program with a focus on Special Education, for post-graduate teachers.	• Assign a unique ID number to every student • Develop an M&E framework to monitor and evaluate all standards across FSM • Develop and regularly update an M & E spreadsheet for monitoring standards • Consider and implement strategies to assess additional student learning outcomes, particularly in VLA, science and social studies	through sports, cultural, civic and community development activities after school for both boys and girls, including students with disabilities	• Introduce new curriculum outlines in vocational education in secondary schools from grade 9 through 12.

Indicators (Monitoring)	**Enabling Environment** (External Factors / Risks and Issues)
Early Childhood Education Indicators (Access and Quality)	Economic Performance and Resourcing
Elementary Education Indicators (Access and Quality)	Disaster Readiness and Resilience
Secondary Education Indicators (Access and Quality)	Curriculum / Educational Expectations
TVET Indicators (Access and Quality)	Availability of Qualified Teacher and Leadership Workforce
Internal Efficiency Indicators (Management)	Geographical Remoteness
Infrastructure and Resourcing Indicators (Management)	National and International Strategic Commitments (e.g. SDGs, COFA)

Chapter 3: Goals and Sub-goals of the ESSDP

This chapter sets out the strategic framework for the ESSDP. The hierarchy of goals and sub-goals at the highest level sets the overarching strategic priorities of the sector, each of which is broken down into a number of outcomes to be achieved, which are in turn achieved through several strategies comprised of individual activities.

3.1. Vision and Mission for Education

The vision and mission for the FSM education sector were formulated during the FSM education summit conducted in February 2015 and published in the summit communiqué, signed by each of FSM's four state governors. The vision and mission underpin this ESSDP:

3.1.1. Vision for Education:

A unified education system that enables every citizen to participate fully in the development of the FSM, the Pacific Community, and the world.

3.1.2. Mission for Education:

To lead, administer, and coordinate a quality education system; support the achievement of high standards; and meet the needs of all learners.

3.2. Education Sector Goal, Sub-goals and Expected Outcomes

The education communiqué also stated five specific goals linked to the mission and vision. These have informed the creation of a single overall goal for the new ESSDP which is to **improve the quality of learning at all levels in safe, climate-resistant learning environments.**

This goal highlights the fundamental purpose of formal education as being to foster and improve student learning outcomes for all students setting the broad expectations for all related infrastructure, planning, staff provision, administration, learning resources and respective budgets.

Overall the approach is hierarchichaly structured at different levels, which are replicated in the M&E framework as well as the Action Plan for purposes of consistency and ease of reference. The hierarchy is as follows:

	Strategy
	Activity Area
	Activities
	Targets
	Indicators

The following sunburst chart links the goal, sub-goals and strategies for reference[14]:

[14] *Please note that the strategy descriptors were rephrased and abbreviated to fit the chart. Strategy numbers have been maintained for ease of reference. Please also note that some strategies are present under more than one goal.*

The following table provides a detailed overview of the individual sub-goals and associated strategies:

It is important to note that some strategies cut across multiple goals, as their activities and focus may be relevant for more than one outcome.

Table 8: Overview of Sub-Goals and Strategies

Sub-Goal	Strategy	
High Quality Relevant Programs	1	Expand and improve national curriculum standards and planning
	2	Develop and distribute new learning materials
	3	Ensure equity of access to education
	4	Improve learning environment
	5	Improve efficiency, accountability, and safety of schools
	12	Expand access to high quality ECE
Quality Teachers and Teaching	3	Ensure equity of access to education
	6	Provide training and certification to teachers and school leaders
	12	Expand access to high quality ECE
Performance Monitoring and Data Based Decision-Making Systems	5	Improve efficiency, accountability, and safety of schools
	7	Use evidence-based planning, policy and research
	8	Improve monitoring and evaluation
	9	Improve financial management and value for money
	12	Expand access to high quality ECE
Community Participation in the Management of Schools	4	Improve learning environment
	5	Improve efficiency, accountability, and safety of schools
	10	Increase parental engagement and ownership of school and learning improvement
	11	Increase community engagement in school management, improvement and resourcing
	12	Expand access to high quality ECE
Relevant to the Life and Aspirations of the People of FSM	1	Expand and improve national curriculum standards and planning
	4	Improve learning environment
	5	Improve efficiency, accountability, and safety of schools
	11	Increase community engagement in school management, improvement and resourcing
	12	Expand access to high quality ECE

Each of the strategies above further breaks down into distinct activity areas and individual activities that together represent the method (or the 'how' of the theory of change) intended to achieve the outcomes and the overall goal specified above. These are presented in sequence below.

G1. High Quality Relevant Programs for the Improvement of Learning

The first high-level goal is intended to achieve the outcome of:

> Improved student learning outcomes, particularly in literacy and numeracy, at all levels with increased numbers of students, including those with special needs, attending school and experiencing quality educational opportunities

It has been further broken down into several strategies, which in turn include the activity areas and specific individual activities intended to comprehensively achieve the stated outcome. These are further detailed below:

G1.S1. Strategy 1: Expand and improve national curriculum standards and planning

Challenges to Be Addressed

Though there is a common curriculum framework at the federal level, the compliance and cross-state collaboration on issues pertaining to curriculum remains limited resulting in variations in interpretations and implementation of curriculum standards and lack of knowledge and resource sharing.

The teaching of languages in the curriculum has presented challenges, due to the lack of availability of of teaching and learning resources for VLA. There is poor articulation of ECE with G1, no Vernacular Language Arts (VLA) curriculum at ECE and no standard assessment for ECE and the lower grades. Orthography training is lacking for teachers within the inadequate overall language policy. There are insufficient reading materials for the English Language Arts (ELA) or for VLA for ECE to grade 2. The National Curriculum Benchmarks, adopted in 2008, cover the majority of grade levels for most subjects, but are missing several, such as VLA for Grade 1, 2, 4, 6, and 7, ELA for Grade 4, Science and Math for Grades 1 and 2, and there is are no Social Studies benchmarks.

There are few centralized resource repositories for sharing materials. Student learning outcomes for some curriculum areas are not yet fully developed and all state mathematics curriculum statements need to be updated and revised to be in alignment with the national curriculum.

Rationale for the Strategy

Establishing a regular meeting at the federal level and ensuring that the curriculum modification and implementation process is as collaborative as possible will ensure that same expectations are set across states and that each state is able to build on the lessons learned and draw on the resources of other states.

Developing a unified Vernacular and English Language Arts curricula and teaching and learning materials (TLM) will help address some of these concerns, and develop materials that can be used across the federation and set similar expectations, and contribute to similar outcomes.

Key Activities and Indicators

G1.S1.A1. Curriculum Planning

Activities	Indicators
G1.S1.A1.1. Establish regular meeting between NDOE and SDOE curriculum specialists at ECE, elementary and secondary level with COM-FSM faculty twice per year	Updated curriculum standards and the creation of curricular materials. Records of meetings.
G1.S1.A1.2. Collaborative process of State specific curriculum modification undertaken, ensuring inter-state collaboration and alignment to minimise duplication wherever possible.	Updated curriculum standards and the creation of curricular materials. Review of relevant records.

G1.S1.A2. VLA Curriculum Standards and Assessment

Activities	Indicators

G1.S1.A2.1. Expand VLA national curriculum standards and benchmarks documents for K to Grade 12 that guide the provision of state standards by 2022	VLA Grade 1 and 2 (2020-21), 4 (2021-22), 6 and 7 (2022-23) are added to National Curriculum Benchmarks and posted on NDOE website. Verification demonstrates that VLA documents for K-grade 12 are tested, placed on file in NDOE and distributed to states. Number of Grades for which this process is complete. Findings reviewed annually and recorded centrally in EMIS.
G1.S1.A2.2. Develop and deliver training on updated VLA curriculum standards	Number of teachers trained. Verification demonstrates that recipients of VLA curriculum standard training demonstrate a strong knowledge of the relevant standards, with findings recorded in EMIS.
G1.S1.A2.3. Monitor implementation of VLA curriculum standards	SAS Standard 4 rating will increase from an average of 8.25 points in Spring 2020 to 9 (2021). 10 (2022), 11 (2023), and 12 (2024). Verification demonstrate that implementation of VLA curriculum standards is effectively monitored, with findings recorded annually in EMIS.
G1.S1.A2.4. Develop common assessments, to be translated into each of the vernacular languages, and administered as a part of the NMCT.	VLA Assessment piloted with Grade 2 by 2021-22, Grade 4 by 2022-23, Grade 6 by 2022-24.

G1.S1.A3. ELA Curriculum Standards

Activities	Indicators
G1.S1.A3.1. Expand ELA national curriculum standards and benchmarks documents for ECE – 12 by end of 2022, to include place-based, relevant content, with special attention given to Grade 4, which is missing from current National Curriculum Benchmarks.	ELA Grade 4 (2020-21) added to National Curriculum Benchmarks. Adoption of expanded standards for Grades ECE-12. Verification demonstrates that expanded ELA documents are in place for grades 3–12, posted on NDOE website, and distributed to schools. Findings reviewed annually and recorded centrally in EMIS.
G1.S1.A3.2. Develop and deliver training on updated ELA curriculum standards	Number of teachers trained. Verification demonstrates that ELA curriculum standards are updated annually, with findings recorded in EMIS.
G1.S1.A3.3. Monitor implementation of ELA curriculum standards	SAS Standard 4 rating will increase from an average of 8.25 points in Spring 2020 to 9 (2021). 10 (2022), 11 (2023), and 12 (2024).

	Verification demonstrates that implementation of ELA curriculum standards is effectively monitored, with findings recorded annually in EMIS.

G1.S1.A4. STEM Curriculum Standards

Activities	Indicators
G1.S1.A4.1. Develop Science and Math national curriculum standards and benchmarks documents for ECE – Grade 2 by end of 2022, to include place-based, relevant content.	Science and Math ECE and Grade 1 (2020-21), and Grade 2 (2021-22) added to National Curriculum Benchmarks. Verification demonstrates that expanded Science and Math documents are in place for ECE – Grade 2, posted on NDOE website, and distributed to schools. Findings reviewed annually and recorded centrally in EMIS.
G1.S1.A4.2. Develop and deliver training on updated Science and Math curriculum standards	Number of teachers trained. Verification demonstrates that Science and Math curriculum standards are updated annually, with findings recorded in EMIS.
G1.S1.A4.3. Monitor implementation of Science and Math curriculum standards	SAS Standard 4 rating will increase from an average of 8.25 points in Spring 2020 to 9 (2021). 10 (2022), 11 (2023), and 12 (2024). Verification demonstrates that implementation of Science and Math curriculum standards is effectively monitored, with findings recorded annually in EMIS.

G1.S2. Strategy 2: Develop and distribute new learning materials

Challenges to Be Addressed

There are insufficient learning materials (textbooks, reading materials, worksheets and equipment) for students in classrooms.

While online resources for students along with e-learning platforms for teachers' professional development are available, there is insufficient infrastructure to effectively take advantage of this resources in the FSM. Some schools lack electricity and many lack reliable computer hardware and internet connections.

Finally, lower learning outcomes in some subjects and areas, e.g. numeracy, have been linked to the lack of TLM available to schools in some parts of FSM.

While the National Curriculum Benchmarks outline the minimum standards, each SDOE sets their own curriculum. As a result, any nationally developed teaching materials need to allow adequate flexibility to align with the standards in each state. In VLA, each state needs to develop their own translations, even if there is a common set of readers sharing the same illustrations, for example.

Rationale for the Strategy

Identification and development of new learning materials and resources, and their compilation into a unified low-cost resource for teachers will increase the availability of and access to appropriate learning resources and help improve the effectiveness of teaching and learning outcomes in the long run.

Key Activities and Indicators

G1.S2.A1. ELA/VLA Learning Materials

Activities	Indicators
G1.S2.A1.1. Develop 6 low cost packages of children's booklets, short stories, and writing activities, to support language learning (vernacular and English) for grades ECE–4 in all elementary schools by the end of 2022/23	ELA packets printed and distributed to schools by Summer 2022. VLA packets translated into local languages, printed and distributed by Summer 2023. Verification demonstrates that learning packages for the teaching of literacy are posted on the NDOE website after evaluation and approval, and that these are effectively used, as demonstrated by inspection findings, with findings recorded annually in EMIS.
G1.S2.A1.2. Review and adopt the low cost packages of children's booklets, short stories, and writing activities, to support language learning (vernacular and English) by national and state language advisors prior to deployment.	Formal adoption of the packets demonstrates that packages developed are effectively reviewed by national and state language advisors prior to deployment with findings recorded in EMIS.
G1.S2.A1.3. Publish Low cost packages of children's booklets, short stories, and writing activities to support language learning (vernacular and English) packages on NDOE website for each grade ECE-Grade 4 by 2022-23.	Materials are professionally printed with durable materials and shipped to schools. Verification demonstrates that Low cost packages of children's booklets, short stories, and writing activities to support language learning (vernacular and English) on NDOE website for each grade ECE to Grade 4. are published and accessible. Findings to be recorded in EMIS.

G1.S2.A2. Math Learning Materials

Activities	Indicators
G1.S2.A2.1. Develop 4 learning packages to improve the teaching of numeracy	Verification that the learning materials align with National Curriculum Benchmarks
G1.S2.A2.2. Pilot learning packages on numeracy and implement feedback collected during pilot	Number of teachers who attended training to learn about the pilot implementation Number of schools participating in the pilot
G1.S2.A2.3. Publish learning packages on NDOE website and print for use in schools.	Verification demonstrates that Learning package is published and accessible on NDOE Website, with this recorded in EMIS. Number of schools that received materials.

	The proportion of children achieving increased proficiency levels in numeracy (disaggregated by state, gender, children with disabilities, and children living in outlying areas) on NMCT tests grades 4, 6, 8 and 10 compared to baseline set in 2018-19
G1.S2.A2.4. Monitor and evaluate continued use of packages for teaching numeracy	EMIS records and Attainment and Progress Data, disaggregated by all groups of pupils within FSM (including, but not limited to gender, those impacted by poverty, pupils in outlying areas, and persons living with disabilities).

G1.S2.A3. Review and Update Existing Learning materials

Activities	Indicators
G1.S2.A3.1. Continue to review, and update, maintain, and procure Quality Learning materials to facilitate effective Learning and Teaching in ECE, elementary, and Secondary Contexts, including Textbooks, Teacher Guides, Digital Resources, and Equipment, drawing on international resources (where appropriate) and locally-produced resources (where available), focusing on low-cost and no-cost solutions when possible.	EMIS records on the review, updating, maintaining, and procurement of Quality Learning Materials.
G1.S2.A3.2. Review learning materials to promote knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	All learning materials incorporate aspects of the sustainable development agenda. SDG agenda is regularly included in assessments. National policy is reviewed to explicitly include SDG agenda goals among national education goals.

G1.S3. Strategy 3: Ensure Equity of Access to Education

Challenges to Be Addressed

Out-of-school students and drop-out rates as reported in the ESA amount to 40% of ECE and secondary age students are not enrolled at school. Trend data is showing that the numbers of out-of-school children at the ECE level are declining steadily as more ECE children attend school, but the numbers at secondary level show only a small reduction. Graduation rates show that a high percentage of students who begin grade 1 go on to enter grade 8 (93% F; 83% M). This is mostly because school attendance is compulsory until the end of grade 8 (or 14 years of age). However, the graduation rate for secondary level is only around 56% (57% F; 54% M) which

means that over 40% of student who begin at grade 9 drop-out from school before grade 12. More young males drop out of school at secondary level than females.

With regards to students with special educational needs and disability, because of its relatively sparse and widely dispersed population, FSM students with disabilities are generally disadvantaged within the education system by lack of funding and resources (human and material). Special education and related services are available only at public schools. At private schools, the only available services are consultative services to teachers. Inclusiveness means that all students regardless of disability or from disadvantaged backgrounds are admitted into regular mainstream education and are treated in an equitable way.

Rationale for the Strategy

An explicit focus of the sector strategy on addressing issues pertaining to children with disabilities, OOS, and NFE, will help make the system more inclusive, equitable, and accommodating for students who may otherwise struggle to reap full benefits of a mainstream education system. As such it is anticipated that a strategy addressing these students explicitly will help in multiple ways: (1) improving outcomes for children with disabilities and other children who could benefit from similar teaching interventions , (2) improving retention and transition rates, (3) improving access to education and NER, (4) improving teachers' pedagogical practices, (5) growing FSM's labour force.

Key Activities and Indicators

G1.S3.A1. Data Monitoring

Activities	Indicators
G1.S3.A1.1. Review and expand student data monitoring and evaluation to enhance equitable access to quality education (in alignment with SDG4 and the human rights conventions to which FSM is a party) for pupils from all demographic groups, including, but not limited to, girls, boys, those impacted by poverty, those living with disabilities, those in remote areas, and those in urban and peri-urban settings.	Access data in EMIS for all groups of pupils within FSM (including, but not limited to, women and girls, those impacted by poverty, pupils with special educational needs, gifted and talented pupils, pupils in outlying areas, out of school pupils, and persons living with disabilities). Findings from SAS Evaluations and related Observations, as recorded in EMIS.

G1.S3.A2. Non-Formal Education

Activities	Indicators
G1.S3.A2.1. Create a list of all NFE providers to determine gaps and overlaps in services.	Post list of NFE programs on NDOE website.
G1.S3.A2.2. Develop and deliver upskilling programmes for providers of NFE	Training agenda, presentations, and handouts. Number of NFA providers who completed trainings, disaggregated by state and sector. Inspection / Observation Findings, and NFE Attainment and Progress Data.

G1.S3.A2.4. Develop and distribute official learning materials for providers of NFE	Verification demonstrates that official learning materials for providers of NFE have been developed and distributed by 2022.
G1.S3.A2.5. Develop and implement policy to allow those unable to access formal education to undertake key examinations and secondary-level qualifications	% of those who have not completed high school, and are no longer of school age who have access to High School Diploma Equivalent qualification.

G1.S3.A3. Out-of-School Children

Activities	Indicators
G1.S3.A3.1. Ensure that Out-of-School Children have access to suitable education settings, or are receiving alternative education of a high standard.	% annual reduction in number of Out-of-School Children, disaggregated by all demographics (including, but not limited to, state, gender, children with disabilities, and children living in outlying areas).

G1.S3.A4. Children with disabilities

Activities	Indicators
G1.S3.A4.1. Undertake evaluation of access to education among learners living with disabilities to make sure they have equitable access to quality education, and appropriate support to ensure they achieve well in relation to Attainment and Progress.	% of learners living with disabilities with equitable access to quality education. Attainment and Progress data of learners living with disabilities.

G1.S3.A5. Gifted and Talented

Activities	Indicators
G1.S3.A5.1. Hire a Gifted & Talented Specialist in 2022.	Position filled with a well-qualified educator.
G1.S3.A5.2. Develop a diagnostic process to identify children who qualify for these services until Title 40 in 2022.	Diagnostic tool is validated.
G1.S3.A5.3. Develop a Gifted & Talented program, including specific interventions to support the learning needs of these students to be piloted by 2023.	Program Design is approved.
G1.S3.A5.4. Train Special Education Teachers to administer the diagnostic tool to children who may qualify as Gifted and Talented in 2023.	Number of children identified and eligible.
G1.S3.A5.5. Train Pilot teachers to offer interventions and supplemental instruction in Summer 2023.	Number of teachers trained.
G1.S3.A5.6. Pilot Gifted & Talented program in at least 1 elementary and high school in each state in 2024.	Number of students enrolled. Assessment results for G&T students.

G1.S4. Strategy 4: Improve learning environment

Challenges to Be Addressed

The learning environment in schools is frequently not conducive to optimal learning with generally poor infrastructure (including access to reliable electricity and internet service), inadequate purpose-specific facilities (such as science laboratories, vocational training workshops, kitchens etc.) and are often insufficiently safe (eg. WASH) and inclusive for access by all students across all ability levels.

Rationale for the Strategy

Improving the learning environment to be safer and more inclusive will further contribute to achieving better educational outcomes for all.

Key Activities and Indicators

G1.S4.A1. Learning environment

Activities	Indicators
G1.S4.A1.1. Develop learning environment guidelines that include both physical and human environment, which is safe, accessible, and conducive to effective learning and teaching, and build teacher capacity to recognise and build positive environments for learning	SAS results on Standard 5, shall increase from an average of 9.55 in 2020 to 10 (2021), 11 (2022), 12 (2023) and 13 (2024). % of pupils have access to suitable Learning Environments, which are safe, accessible, and conducive to effective learning and teaching. % of schools with access to reliable Internet. % of students with access to a computer.

G1.S5. Strategy 5: Improve efficiency, accountability, and safety of schools

Challenges to Be Addressed

As noted previously, education in the FSM faces many issues with regards to efficiency, related to repetition, transition, survival rate, and completion rates. Driven by a combination of factors, including but not limited to challenges to access, and perceived low relevance of education for the life and labour of FSM's population has resulted in efficiency outcomes below levels acceptable to the NDOE and SDOEs.

Rationale for the Strategy

Under Goal 1, this particular strategy focuses on aspects of efficiency. Explicitly addressing efficiency-oriented challenges through a dedicated strategy will help improve overall access to education in the country as well as achieve higher and better educational outcomes for larger portion of the population. Disaggregating data by state, community demographics (eg. Urban, Lagoon, Outer Islands), gender, disability, and other factors, can lead to greater intentionality in supporting at-risk students and their families through targeted interventions.

Key Activities and Indicators

G1.S5.A1. Repetition

Activities	Indicators
G1.S5.A1.1. Grade Repetition to be reduced by identifying factors impacting	% of schools in which Grade Repetition is reduced.

on Repetition Rates, and establishing interventions to mitigate these.	
G1.S5.A1.2. Explore opportunities to create a more fluid promotion model for schools that use multi-grade teaching, in response to the developmental and academic needs of students at-risk of repetition.	% of students in multi-grade environments who repeat a grade level, is reduced through use of flexible instruction.

G1.S5.A2. Transition

Activities	Indicators
G1.S5.A2.1. Grade and Phase Transition Monitored, with appropriate interventions in place, to ensure continued progress for learners	% effective Grade and Phase transition, disaggregated by all groups of pupils within FSM (including gender, children with disabilities, and children who live in outlying areas). Lesson Observation data from Inspections. International Benchmark Data.
G1.S5.A2.2. Increase outreach to parents of children with disabilities to ensure they are aware of their child's right to attend secondary school, regardless of their performance on the high school entrance exam.	% of increase of children with disabilities transitioning to secondary education.

G1.S5.A3. Survival rate

Activities	Indicators
G1.S5.A3.1. Survival rate to increase by identifying factors impacting on Survival Rates, and establishing interventions to mitigate these.	% Survival Rate, disaggregated by all groups of pupils within FSM (including, gender, children with disabilities, and children living in outlying areas). Lesson Observation data from Inspections. International Benchmark Data.
G1.S5.A3.2. Determine and record reason for students leaving school mid-year.	FedEMIS data tracking of out-migration, movement between schools, and other reasons for leaving mid-year, using student numbers.
G1.S5.A3.4. Ensure those who transfer between schools or who migrate to U.S. or Guam are given transcripts, IEPs, and other educational records to help ease the transition to their new school and reduce the chance of their education being interrupted.	% of children who are sent with transcript, IEP, and other educational records when they move between schools or migrate to Guam or U.S.

G1.S5.A4. Completion rate

Activities	Indicators

G1.S5.A4.1. Completion rate to increase by identifying factors impacting on Completion Rates, and establishing interventions to mitigate these.	% Completion Rate, disaggregated by all groups of pupils within FSM (including, but not limited to, gender, those impacted by poverty, pupils with special educational needs, gifted and talented pupils, pupils in outlying areas, out of school pupils, and persons living with disabilities). Lesson Observation data from Inspections. International Benchmark Data.

G1.S12. Strategy 12: Expand access to high quality ECE

Challenges to Be Addressed

Following the inclusion of ECE specific targets and indicators in the SDG, FSM substantially increased the focus of its educational policy on and the prominence of the ECE sub-sector. Given the relatively limited central planning and regulation ECE was subjected to before the introduction of the SDG, the NDOE's work in this area remains extensive and must address the ECE sub-sector comprehensively. As such ECE has been given special attention within this ESSDP, as a separate area of focus, which is reflected in the structure of the goals and strategies by having all ECE-related activities and focus areas aggregated under one strategy number 17. This means that each goal refers to different sub-components of Strategy 17 to reflect the parts of the ECE that fall under the remit of each Goal.

In this case, the relevant aspects of strategy 17 are looking to address the current issue of the lack of a harmonized framework of learning outcomes in ECE formulated in a unified curriculum framework, availability of ECE resources, suitable learning environment, and availability of ECE centres.

Rationale for the Strategy

Making ECE compulsory from age 5, and improving the quality and expectations of existing and future provision is anticipated to improve the school readiness of pupils who transition into elementary, and contribute to their learning skills and knowledge.

Strengthening central allocation of resources and planning will help ensure that ECE remains a priority for the NDOE and SDOEs in the future, and becomes an intrinsic part of their agenda.

Key Activities and Indicators

G1.S12.A1. ECE Resource Allocation

Activities	Indicators
G1.S12.A1.1. Define budget guidelines to increase NDOE and SDOE budget allocation to ECE to 10% with the view of improving quality and quantity of adequate teaching/ learning materials for curriculum implementation in ECE	Budget documents show adequate funding for curriculum and teaching materials.

G1.S12.A2. ECE Learning environment

Activities	Indicators

G1.S12.A2.1. Ameliorate ECE learning environment and update infrastructure, while encouraging effective and safe use of appropriate existing community resources, and infrastructure (including underutilised government health and education facilities), where costs of dedicated facilities are prohibitive.	% of pupils with close access to ECE learning environment, disaggregated by all groups of pupils within FSM (including, but not limited to gender, those impacted by poverty, pupils with special educational needs, gifted and talented pupils, pupils in outlying areas, out of school pupils, and persons living with disabilities).

G1.S12.A3. ECE Curriculum

Activities	Indicators
G1.S12.A3.1. Harmonize ECE curriculum across its various versions (state ECE curriculum & standardized curriculum)	Review of curricula.

G1.S12.A4. ECE Planning and Policy

Activities	Indicators
G1.S12.A4.1. Make Early Childhood Education (ECE) compulsory in FSM from age 5	% of children enrolled in ECE from age 5, disaggregated by all groups of pupils within FSM (including, but not limited to, women and girls, those impacted by poverty, pupils with special educational needs, gifted and talented pupils, pupils in outlying areas, out of school pupils, and persons living with disabilities).
G1.S12.A4.2. Strengthen overall legislative frameworks and policies on ECE / consistency in different guidelines on ECE between the federal and state	Verification demonstrates strengthened legislative frameworks and policies on ECE / consistency in different guidelines on ECE between the federal and state governments.

G1.S12.A5. Expand ECE to Underserved/Unserved Communities

Activities	Indicators
G1.S12.A5.1. Develop and implement a strategy to establish ECE classes by targeting the public elementary schools which currently do not have an ECE class,	Number of ECE classes in public elementary schools
G1.S12.A5.2. Explore innovative modalities of ECE (e.g. community based, home based) to cater to the diverse needs of children	% of children who regularly participate in alternative / innovative ECE provision

G2. Improve the Quality of Teachers and Teaching at All Levels

The second high-level goal is intended to achieve the outcome of:

Competent, qualified and certified teachers and school leaders who can demonstrate their competencies against approved standards and are supported through opportunities for continuous professional development in their knowledge and practice

It has been further broken down into several strategies, which in turn include the activity areas and specific individual activities intended to comprehensively achieve the stated outcome. These are further detailed below:

G2.S3. Strategy 3: Ensure equity of access to education

Challenges to Be Addressed

While COM-FSM offers 7 courses for pre-service teachers to learn about special education strategies, there is still a need for greater expertise and skill to effectively address the needs of students with disabilities.

Rationale for the Strategy

Collaborating with COM-FSM to develop professional learning opportunities in the field of Special Education for post-graduate teachers will open up a channel for teachers who wish to specialise in this area and help develop a work force necessary to effectively implement all the activities and targets related to inclusive education.

Key Activities and Indicators

G2.S3.A1. Special Education

Activities	Indicators
G2.S3.A1.1. Introduce additional units in Special Education by COM-FSM as a mandatory component of teacher education pre-service programs (elementary and secondary)	Review of Pre-Service Programme (elementary and secondary) content.
G2.S3.A1.2. COM-FSM to introduce a post-graduate qualification for Special Education teachers wishing to specialize as inclusive education teachers at all levels	Number of students enrolled in Special Education courses at COM-FSM.

G2.S6. Strategy 6: Provide training and certification to teachers and school leaders

Challenges to Be Addressed

Improving the provision of in-service training (professional development) for teachers is an effective and efficient strategy for raising the quality of teaching. Standard 2 of the school accreditation system (SAS) in FSM requires judgement to be made about the competence of teachers in a school. The results of Standard 2 in the accreditation process can identify teachers' needs at both individual and school levels and in-service programs can be provided that are linked to these needs.

There is currently a significant portion of teachers who do not possess required certification as a result of many teachers not taking the recently-adopted NSTT, and some not passing it. The ESSDP will seek to increase the number of teachers passing the NSTT although higher numbers

of teachers with the certification does not necessarily correlate with improved teaching unless additional professional development is also provided in a coordinated and systematic manner.

A significant number of teachers have not received on-going professional development support to ensure they have the content, pedagogical and assessment knowledge needed to implement effective programs.

There are limited resources available to teachers and a lack of cost-effective TLMs. While the infrastructure is too limited for most schools to mitigate this through using electronic or online resources, some teachers who work in schools with adequate technology infrastructure can make use of these technologies. At the moment a significant portion of teachers (as well as students) struggle to use technology effectively to support their teaching (and learning) needs.

FSM's learning outcomes at state as well as federal level, particularly in numeracy and literacy have been relatively low, compared to international benchmarks. Though according to PILNA, FSM's results are higher than the regional average, the overall attainment and progress remains limited, even against relatively low performance targets.

Rationale for the Strategy

To address these challenges comprehensively, the NDOE is looking to increase teacher certification and opportunities for in-service training, and establish a training coordination unit with the relevant mandate to ensure the continuation of the programmes and their continued importance for the NDOE's agenda.

Improving pedagogical practice of the current teacher workforce will help not only to lead to better educational outcomes and more effective teaching, but also help improve teacher motivation and engagement through enabling mastery of their profession.

Delivering ICT and technology training to teachers and students will help make sure that both are able to make best use of digital resources and are prepared to engage with digital materials developed by the NDOE at a later stage.

Better learning outcomes are at the heart of the ESSDP and among the highest priorities of the NDOE and SDOEs, as well as for the education sector in general. Furthermore, SDG4 targets include substantial focus on improving educational outcomes.

Key Activities and Indicators

G2.S6.A1. Improving Literacy

Activities	Indicators
G2.S6.A1.1. Undertake detailed data analysis to diagnose specific issues in literacy teaching and develop strategies to address issues identified	Verification demonstrates that detailed data analysis to diagnose specific issues in literacy teaching and develop strategies to address issues identified, has been undertaken.
G2.S6.A1.2. Develop a training programme on improving pedagogical approaches to teaching literacy, including multi-grade and bilingual approaches	Training materials, including agendas, slide shows, and handouts. Verification demonstrates that training programme on improving pedagogical approaches to teaching literacy has been undertaken. Evidence from SAS school evaluation findings, and national assessment data.

G2.S6.A1.3. Pilot training of literacy teaching programmes and implement feedback collected during pilot	Number of teachers trained. Verification demonstrates that pilot training of literacy teaching programmes has been undertaken, and that feedback on pilot has been implemented.
G2.S6.A1.4. Improve test results showing increased proficiency levels in reading (disaggregated by gender, community demographics, and children with disabilities) as measured on annual NMCT Literacy tests for grades 6, 8 and 10	NMCT test results, disaggregated by all groups of pupils within FSM (including, but not limited to, gender, children with disabilities, and children living in outlying areas).
G2.S6.A1.5. Monitor and evaluate continued implementation of new pedagogical approaches to teaching literacy	EMIS records and Attainment and Progress Data, disaggregated by all groups of pupils within FSM (including, but not limited to state, gender, children with disabilities, and children living in outlying areas)

G2.S6.A2. Improving numeracy

Activities	Indicators
G2.S6.A2.1. Undertake detailed data analysis to diagnose specific issues in numeracy teaching and develop strategies to address issues identified	Verification demonstrates that training programme on improving pedagogical approaches to teaching numeracy has been undertaken. Evidence from SAS school evaluation findings, and national assessment data.

G2.S6.A3. Attainment and progress

Activities	Indicators
G2.S6.A3.1. Perform annual monitoring about Attainment and Progress, and communicate the results to schools and the public.	Maintain records in the FedEMIS that include Attainment and Progress data disaggregated by all groups of pupils within FSM (including, but not limited to, gender, , pupils with special educational needs, gifted and talented pupils, pupils in outlying areas, out of school pupils, and persons living with disabilities). Lesson Observation data. International Benchmark Data.

G2.S6.A4. Assessment

Activities	Indicators
G2.S6.A4.1. Develop and pilot assessment guides for teachers that assist with understanding assessment strategies, including informal and formal, diagnostic, formative and summative approaches to	Verification demonstrates that assessment guides for teachers that assist with understanding assessment strategies, including informal and formal, diagnostic, formative and summative approaches to

assessing student learning during elementary and secondary classroom activity	assessing student learning during elementary and secondary classroom activity have been developed and piloted. Attainment and Progress data disaggregated by all groups of pupils within FSM (including, but not limited to, women and girls, those impacted by poverty, pupils with special educational needs, gifted and talented pupils, pupils in outlying areas, out of school pupils, and persons living with disabilities). Findings from Inspections and related Observations.
G2.S6.A4.2. Monitor use of assessment guides and specific approaches in the classrooms	Attainment and Progress data disaggregated by all groups of pupils within FSM (including, but not limited to, women and girls, those impacted by poverty, pupils with special educational needs, gifted and talented pupils, pupils in outlying areas, out of school pupils, and persons living with disabilities). Findings from Inspections and related Observations, as recorded in EMIS.

G2.S6.A5. Use of ICT and Technology

Activities	Indicators
G2.S6.A5.1. Provide training to facilitate effective use of technology and ICT by teachers (and students)	Number of teachers trained % of schools with sufficient IT infrastructure

G2.S6.A6. Mentoring

Activities	Indicators
G2.S6.A6.1. Establish Mentoring programmes to strengthen Teacher and Ministry Official Capacity to support the delivery of effective learning and teaching in schools.	Attainment and Progress data disaggregated by all groups of pupils within FSM (including, but not limited to, women and girls, those impacted by poverty, pupils with special educational needs, gifted and talented pupils, pupils in outlying areas, out of school pupils, and persons living with disabilities). Lesson Observation data from Inspections.

G2.S6.A7. Higher-Order Thinking Skills

Activities	Indicators
G2.S6.A7.1. Teachers Upskilled to ensure Learning that Promotes and informs higher order thinking skills, particularly critical thinking, amongst learners of all demographics.	Attainment and Progress data disaggregated by all groups of pupils within FSM (including, but not limited to, women and girls, those impacted by poverty, pupils with special educational needs, gifted and talented pupils, pupils in outlying areas, out of school pupils,

	and persons living with disabilities). Lesson Observation data from Inspections. International Benchmark Data.

G2.S6.A8. Teacher certification

Activities	Indicators
G2.S6.A8.1. Retrain and certify teachers under the provisions of Title 40 of the FSM Code (or equivalent).	% of classroom teachers certified, except those under the 90-day exception period, increases from a baseline of 35% in 2020 to 50% (2021), 65% (2022), 75% (2023, and 85% (2024) Disaggregate data by gender and rural/outlying areas to ensure equity.

G2.S6.A9. Establishment of Training Coordination Units

Activities	Indicators
G2.S6.A9.1. Establish an NDOE central unit to coordinate all in-service teacher training programs in FSM and establish sub-units linked to the national unit in each SDOE to administer in- service activity in each state and report data to central unit, to be fully functional by 2022	Verification demonstrates NDOE unit and 4 SDOE sub- units formed with key staff appointed.

G2.S6.A10. In-service training

Activities	Indicators
G2.S6.A10.1. Teachers will engage in a minimum of ten hours of in-service teacher training per year, between in-school and centrally-organized opportunities.	% of Teachers who complete in-service training, as recorded in FedEMIS. Records of in-service training undertaken by all teachers established as state records held by SDOEs Disaggregate data by gender and rural/outlying areas to ensure equity of access for all teachers.
G2.S6.A10.2. School leaders determine annual prioritized list of school-based needs for in-service training based on the SAS Standard 2 report for their school	Collated SDOE SAS data for standard 2 on file. National data file in NDOE central unit maintained with uploads from SDOE units
G2.S6.A10.3. All schools (elementary and secondary) conduct at least 6 school based in-service programs according to their prioritized list of needs. Resource persons to provide training are sourced externally or from within schools.	% of schools conducting school-based in-service programmes.

G2.S12. Strategy 12: Expand access to high quality ECE

Challenges to Be Addressed

Similarly to the rest of the education sector, training and professional development of the teaching workforce in the ECE sub-sector has historically been neglected.

Rationale for the Strategy

To ensure that teachers are effective and able to achieve the relevant learning outcomes in the context of ECE, similar strategies for the curriculum and teacher development must be introduced.

Key Activities and Indicators

G2.S12.A1. Increase Supply of Qualified ECE Teachers

Activities	Indicators
G2.S12.A1.1. NDOE in partnership with COM-FSM to develop and implement pre-service training specifically for ECE teachers	Number of teachers who complete the pre-service program ECE Attainment and Progress data disaggregated by all groups of pupils within FSM (including, but not limited to, women, pupils with special educational needs, gifted and talented pupils, pupils from outlying areas, and persons living with disabilities)..
G2.S12.A1.2. NDOE in partnership with COM-FSM to develop and implement a systematic Professional Development mechanism (in-service training) for ECE teachers (especially at each state level)	Training agenda, presentations, and handouts. Number of teachers who attend training. Findings from SAS Evaluations/Observations. Records of Professional Development Training.
G2.S12.A1.3. Review the qualification requirements for hiring ECE teachers to secure enough number of teachers to improve teacher:pupil ratios in ECE in line with international good practice for ECE settings	Teacher: pupil ratios (disaggregated by pupil age, and by region, etc.) ECE Teacher Qualification Policy

G3. Maintain Consistent Performance Monitoring and Data Based Decision-Making Systems

The third high-level goal is intended to achieve the outcome of:

> Evaluations and monitoring evidence along with enhanced research findings are included in an integrated database that is regularly updated and used by decision-makers to inform policy and planning across the sector

It has been further broken down into several strategies, which in turn include the activity areas and specific individual activities intended to comprehensively achieve the stated outcome. These are further detailed below:

G3.S5. Strategy 5: Improve efficiency, accountability, and safety of schools

Challenges to Be Addressed

The NDOE has launched an expansive data management system (FedEMIS), there is a need to develop several additional modules, including for tracking individual students. Currently, it includes nation-wide data about enrolment, accreditation, student assessment, funding, and other issues, disaggregated by state, gender, and other factors. Schools' ability to maintain data and report on relevant school outcomes and issues with the wider community has to an extent been limited by the school staff's ability to use technology to complete such tasks.

Progression, transition, repetition, drop-out, and other efficiency indicators have historically been challenging to track, due to a lack of a centralized student register that would include time-series data on specific students. This in turn has limited the government's ability to identify (and implement interventions for) students who are at risk of dropping out, excessive repetition, or absenteeism.

Rationale for the Strategy

To strengthen communication, record keeping, and data monitoring, schools need to receive training on the use of ICT for this purpose. To improve tracking of students, their progression and other data relating to their educational experiences, the NDOE has decided to introduce student ID numbers for all students, which will permit centralized, time-series tracking, and allow for subsequent comprehensive analysis of student data.

Key Activities and Indicators

G3.S5.A1. Use of ICT and Technology

Activities	Indicators
G3.S5.A1.1. Conduct one-week training programme to NDOE on web-page development in 2020-2022 and build capacity of each SDOE to develop and maintain web pages that are kept current and used as an active communication tool, with input from COM IT specialists	FedEMIS Records on training programmes.

G3.S5.A2. Student ID numbers

Activities	Indicators
G3.S5.A2.1. Assign a unique ID number to every student when first enrolled at school from 2020, linked to NMCT, attendance, enrolment, report cards, transcript, and other relevant data.	% of new students have a new and unique ID that is traceable across each state monitoring system
G3.S5.A2.2. Assign a unique ID number to every student already enrolled at school from 2021	% of students have a new and unique ID that is traceable across each state monitoring system

G3.S7. Strategy 7: Use evidence-based planning, policy, and research

Challenges to Be Addressed

The NDOE and SDOEs do not have a documented sector research strategy, or advanced expertise in sector wide research, policy and development planning. Many of the issues identified in the ESA, such as secondary dropouts with more boys dropping out than girls, availability of resource materials etc. need to be researched further and evidence collected to provide data to support a proper analysis of the issues.

NDOE Quality & Effectiveness staff currently use detailed, disaggregated results from the SAS and NMCT to identify correlations between accreditation standards and student performance, as well as between the standards themselves. There is a need to continue these studies, and to expand research to other areas, such as the correlation between teacher certification and qualifications with student achievement, and the impacts of learning environment (eg. Multi-age, rural, quality of facility) on student achievement.

Without an adequate database, there is a likelihood of duplication of resource allocations, since there is no sector wide resourcing policy that links resources with student learning outcomes.

The preparation of the FSM Education Data Digest 2018 and the 2020 launch of the was a positive step towards making system-wide education-related data more readily available through an enhanced FSM Education Information Management System (FedEMIS). However, weaknesses remain in the interpretation and use of student assessment information, such as the data from NMCT and PILNA, and in using that data to improve student performance levels.

Rationale for the Strategy

As a result the NDOE is including a strategy as part of this ESSDP to strengthen data collection, analysis and planning, by appointing a dedicated policy, planning, and research unit and making targeted improvements to the FedEMIS and school data tracking and reporting.

Key Activities and Indicators

G3.S7.A1. Policy, planning, and research

Activities	Indicators
G3.S7.A1.1. Develop and implement a process for policy review and gap analysis at each sub-sector to inform decision making, policy development and legislative changes (starting with ECE in 2021; elementary in 2022; secondary 2023; post-secondary in 2024)	Activity Review. Report listing the findings of the policy review and gaps analysis.
G3.S7.A1.2. Establish a policy, planning and research (PPR) unit within Division of Quality and Effectiveness which links to sub-units in each SDOE and is functioning effectively by December 2021	Job Description Work Plan of PRR staff

G3.S7.A2. FedEMIS Expansion

Activities	Indicators
G3.S7.A2.1. Include additional data fields for the 2020 – 21 FedEMIS to enhance the	NDOE verifies the quality of the new data collected by random spot-checking prior to

breadth and usefulness of the full dataset to meet the requirements of the SDG4 for FSM by 2020.	publishing it in the 2020–21 Fed EMIS % Stakeholders are using the FedEMIS app to access on- line data.

G3.S7.A3. Data Quality

Activities	Indicators
G3.S7.A3.1. Conduct 2 capacity-building training programs in each SDOE in 2020/21 and again in 2021/22 to train school staff on how to collect data, encode it accurately and report it to the school leader.	FedEMIS Records on training programmes.
G3.S7.A3.2. Conduct 2 capacity-building training programmes in each state in 2020/21 to train school leaders in gathering and recording accurate data and reporting it to SDOE data analysis group	FedEMIS Records on training programmes.
G3.S7.A3.3. Improve collection, reporting, and analysis of student data to inform state and federal policy	Review of EMIS data and report generation capabilities.

G3.S8. Strategy 8: Improve monitoring and evaluation

Challenges to Be Addressed

The availability of reliable and comprehensive data from the Education Data Digest (EDD) is critical to enable effective M&E of the ESSDP implementation. The annual school census included in the EDD will provide national and state data to track the progress of key indicators.

As stated in the ESSDP, both the NDOE and the SDOEs will be responsible for conducting relevant research activities to generate evidence and obtain objective data to enhance management decisions and to determine the effect of various intervention strategies implemented to support the sector plan.

Rationale for the Strategy

To ensure that both of these targets are achieved effectively, the NDOE's and SDOEs' capacity to effectively monitor and evaluate the indicators and targets of this ESSDP needs to be significantly strengthened. As such, developing, piloting and implementing the associated M&E framework must be one of the key priorities for implementation.

Key Activities and Indicators

G3.S8.A1. M&E Framework

Activities	Indicators
G3.S8.A1.1. Policy and planning unit, called the National Qualification Authority, to develop an M&E framework to monitor and evaluate all standards across FSM and integrate it with EMIS	Framework Review.

G3.S8.A1.2. Pilot and update the new M&E framework in 2021-2024	EMIS records, and review of M&E Framework.
G3.S8.A1.3. Develop an M&E spreadsheet for monitoring standards, which is updated regularly by SDOE and NDOE designated officers	EMIS records, and review of M&E Framework.

G3.S9. Strategy 9: Improve financial management and value for money

Challenges to Be Addressed

The Compact of Free Association (CoFA) between FSM and the United States of America is expiring in 2023. As of yet, there is still significant uncertainty over the conditions and content of the next agreement. Though it is unlikely that no agreement would be reached, the small probability of such an occurrence represents a small possibility of catastrophic results for education in the country. In light of the continued reduction in international involvements and organizations driven by Trump's administration, and increased domestic spending to combat the impact of COVID-19, it is possible that negotiations preceding the new CoFA agreement may result in reduction of funds available for FSM.

Moreover, due to current systemic challenges facing the FSM education system, particularly with regards to efficiency, data tracking and analysis, FSM has continuously not been able to fully utilize all funding available to it, nor systematically evaluate the efficacy of the spending being made.

Rationale for the Strategy

For these reasons, it is important that FSM thoroughly reviews its financial management practices to identify areas for improvement and increase its grant spending to achieve better value for money for the funds available to it. In anticipation of (and as a mitigation of the potentially disastrous risk) CoFA negotiations, and potential reduction in funding available, an austerity contingency plan should be developed by the NDOE, examining areas in which funding could be reduced, eliminated, or replaced through community resourcing.

Key Activities and Indicators

G3.S9.A1. Financial efficiency and effectiveness

Activities	Indicators
G3.S9.A1.1. Develop criteria for procurement and spending to ensure that all Education spending delivers Value for Money and Efficiency	Review of EMIS data on Value for Money and Efficiency.
G3.S9.A1.2. Increasing grant spending efficiency by improving monitoring, evaluation, and accountability mechanisms, by frequent reviews for cost-control, and systematic efficiency drives to minimise waste, duplication, and spending that does not impact effectively on outcomes, and to maximize allowable spending under grants.	% of grant dollars spent Amount of returned funds from unspent grants Grant spending efficiency
G3.S9.A1.3. Austerity contingency plan in place for end of CoFA	Review of contingency plan.

G3.S12. Strategy 12: Expand Access to High Quality ECE

Challenges to Be Addressed

The quality of ECE has so far not been systematically monitored or reported on due to lack of consolidated QA system and data reporting. Furthermore, the data resulting from ECE inspections and other QA activities, particularly related to pupils' attainment and progress is not readily available to ECE teachers, who are therefore not able to make data-driven decisions and implement relevant interventions.

Finally, the lack of tracking for the distance walked by pupils to access ECE has disenfranchised some pupils from access, as centres are not located sufficiently closed to their homes.

Rationale for the Strategy

Strengthening the ECE QA system, and sharing data with teachers will help improve data-driven decision-making and interventions leading to improve learning outcomes overall.

Tracking and addressing distance walked will help improve access particularly among pupils who live in geographically remote areas.

Key Activities and Indicators

G3.S12.A1. ECE Learning environment

Activities	Indicators
G3.S12.A1.1. Determine the maximum acceptable walking distance for child to travel to an ECE classroom.	Document and post the policy recommendation.
G3.S12.A1.2. Study the walking distance for all students to reach an ECE facility to determine where new sites or transportation options should be established.	List of needed transportation or new ECE sites to accommodate all children.

G3.S12.A2. ECE Quality Assurance

Activities	Indicators
G3.S12.A2.1. Develop ECE student assessment criteria and tools to be included in FedEMIS	ECE Assessment Tool. Teachers' implementation of the tool.
G3.S12.A2.2. Improve monitoring process & purpose in ECE by establishing ECE-specific features in the FSM centralized database (FedEMIS)	ECE Attainment and Progress data disaggregated by all groups of pupils within FSM (including, but not limited to, women and girls, those impacted by poverty, pupils with special educational needs, gifted and talented pupils, pupils in outlying areas, out of school pupils, and persons living with disabilities), and findings from Inspections/Observations. Records of Professional Development Training.

G3.S12.A2.3. Develop standardized state-level ECE-sector progress reports and establish a feedback mechanism for each state to benefit from the collected information compiled at the national level.	Report developed, analysis completed annually, and distributed to relevant stakeholders in states.

G3.S12.A3. ECE Teacher Certification

Activities	Indicators
G3.S12.A3.1. Make the content of the NSTT relevant for the ECE teachers	NSTT content reviewed and updated to match ECE teachers' needs

G4. Strengthen the Participation of Communities in the Management of Schools

The fourth high-level goal is intended to achieve the outcome of:

> A coordinated approach through effective partnerships with key community stakeholders at all levels ensuring all policies contribute to improved quality of educational provision across the sector

It has been further broken down into several strategies, which in turn include the activity areas and specific individual activities intended to comprehensively achieve the stated outcome. These are further detailed below:

G4.S4. Strategy 4: Improve learning environment

Challenges to Be Addressed

Cost of providing lunches remains an obstacle to access to basic education for many families, particularly in lower wealth quintiles.

Malnutrition negatively affects pupils learning and educational outcomes.

Students must walk too far to easily return home for lunch in the middle of a school day.

Rationale for the Strategy

Introduction of feeding programmes is proposed as a way of combatting the hidden costs of education for more disadvantaged families, and to ensure that all children receive sufficient and healthy nutrition to help them focus on their learning and progress.

Furthermore, the expansion (or introduction) of school feeding programs in another potential vehicle for generating greater parent engagement since meal preparation requires volunteer labour to offset the costs involved in such programs.

Key Activities and Indicators

G4.S4.A1. Feeding programmes

Activities	Indicators
G4.S4.A1.1. Identify schools with grades 1-6 in particular need of school feeding programmes introduction (i.e. those with	Number of school feeding programs at ECE – grade 6 level; Budgets and attendance data recorded and reported, disaggregated by all

high rates of malnutrition and poverty-driven absenteeism and drop-out rates) and define criteria for school feeding programme introduction	groups of pupils within FSM (including, but not limited to those impacted by poverty and persons living with disabilities), and findings from Inspections/Observations.
G4.S4.A1.2. By 2021–22, school feeding programs are trialled at grade 1-6 levels in 50% of elementary schools; attendance data noted	% of schools in which school feeding programmes are trialled at Grades 1-6. Attendance data disaggregated by all groups of pupils within FSM (including, but not limited to gender, those impacted by poverty, pupils in outlying areas, and persons living with disabilities), and findings from Inspections/Observations.
G4.S4.A1.3. By end of 2023, school feeding programs are available in all elementary schools; attendance data noted	% of schools in which school feeding programmes are trialled at Grades 1-6. Attendance data disaggregated by all groups of pupils within FSM (including, but not limited to, gender, those impacted by poverty, pupils with special educational needs, pupils in outlying areas, and persons living with disabilities), and findings from Inspections/Observations.

G4.S5. Strategy 5: Improve efficiency, accountability, and safety of schools

Challenges to Be Addressed

Lack or poor quality of data being collected and infrequent reporting on the data included in the FedEMIS undermines the transparency and accountability of the institutions operating within the FSM education system.

Rationale for the Strategy

Efficient and accurate data reporting is crucial to achieving transparency and accountability to the stakeholders in the system. It also increases awareness and celebration of student achievements and can prioritize efforts to address areas of needed improvement.

Key Activities and Indicators

G4.S5.A1. Accountability and Transparency

Activities	Indicators
G4.S5.A1.1. Increase Transparency and Accountability at all levels, with a focus on Learning Outcomes, Efficiency, and Evidence, by sharing reports and data through the NDOE and SDOE websites, the FedEMIS app, the media, and via PTA meetings and other public forums	% of all high-level data on Learning Outcomes, Efficiency, and Evidence provided online, open access (rendered anonymous as required).

G4.S10. Strategy 10: Increase parental engagement and ownership of school and learning improvement

Challenges to Be Addressed

Throughout the many cultures of the FSM, all believe there is no better teacher than a parent. Educational leaders assert that the first teacher is the parent and that the classroom teachers and other school staff are in the role of "second teacher".

The extent to which school committees, parent-teacher associations or private school boards are coordinating with their parents is variable. Parents seem to feel comfortable delegating the responsibility of formal education to the schools. They seem reluctant to assist with improving academic outcomes.

Rationale for the Strategy

The traditional Parent-Teacher Association (PTA) structure can be expanded to a more formal structure that is representative of the community served by the school and that has a role in the organization of the school program.

School Improvement Plans (SIP) are a good vehicle for promotion of collaboration between school principals, teachers, parents, students and other community people engaged with the school.

Key Activities and Indicators

G4.S10.A1. Expand Role of PTAs

Activities	Indicators
G4.S10.A1.1. Specifications for standardized PTAs are prepared and distributed to all schools, modifying existing Parent-Teacher Associations (PTA) with expanded membership more representative of the whole school community, and a greater focus on building parent understanding of school information, such as student assessment results, attendance expectations, and volunteer opportunities.	% of schools with an expanded PTA is assessed at end of SY 2021-22 and SY 2023-24.

G4.S10.A2. Parental Engagement in Extra Curriculars

Activities	Indicators
G4.S10.A2.1. Develop guidelines and training programme for involving parents in the planning and delivery of extra-curricular programmes at schools	% of schools reporting involvement of parents in the planning and delivery of extra-curricular activities, observation/inspection data.
G4.S10.A2.2. Train parents and relevant school staff on new guidelines and extra-curricular provision	% of parents and school staff surveyed demonstrating strong knowledge and understanding of new guidelines on extra-curricular provision.
G4.S10.A2.3. Community members, parents and teachers all contribute to the	% of schools in which inspection findings and survey data demonstrates that community

daily extra-curricular program through sports, cultural, civic and community development activities after school for both boys and girls	members, parents and teachers all contribute to the daily extra-curricular program through sports, cultural, civic and community development activities after school for both boys and girls

G4.S10.A3. Parental Engagement in School Boards

Activities	Indicators
G4.S10.A3.1. Enhance community and parental involvement in School Boards by making representation of these stakeholder groups in school board meetings mandatory.	% of Private School Boards with Community and Parental Members.
G4.S10.A3.2. Create a reporting channel for parental and community consultations feedback and undertake regular visits to school board meetings to collect inputs from these stakeholders to further inform decision making at a State and Federal Level.	% of decision making at State and Federal Level informed by parental and community consultations.

G4.S11. Strategy 11: Increase community engagement in school management, improvement and resourcing

Challenges to Be Addressed

Similarly to parental engagement, the extent to which schools are coordinating with their communities is variable.

Rationale for the Strategy

Creating formal channels of community engagement and expanding the expectations for their role in a school's operation will help solidify the community's role as a resource.

Key Activities and Indicators

G4.S11.A1. SIP Community Engagement

Activities	Indicators
G4.S11.A1.1. Schools prepare their School Improvement Plan in collaboration with parent and community representatives, particularly by engagement at regular PTA meetings	Increase the average SAS Standard 6 score from 7.6 (2020) to 9 (2021), 11 (2022), 12 (2023) and 13 (2024) Percentage of schools with a SIP is assessed at end of SY 2021-22 and SY 2023-24

G4.S11.A2. Community Engagement

Activities	Indicators
G4.S11.A2.1. Develop a guide, training, and templates for schools to inform parents and community members about student learning outcomes, successes and	% of schools in which guide is used.

challenges facing the school, via PTA meetings, newsletters, and/or other public methods.	
G4.S11.A2.2. Pilot and implement parents / community engagement guidance for schools	Review of Pilot Data.
G4.S11.A2.3. School stakeholders receive regular updates about school activities from school leaders, through circulars or personal communication	% change in the level of engagement of community members and parents in school activities

G4.S11.A3. Community Resourcing

Activities	Indicators
G4.S11.A3.1. Update School Improvement Plans to prioritize leveraging parents and community resources.	% of schools update School Improvement Plans effectively Increase the average SAS Standard 6 score from 7.6 (2020) to 9 (2021), 11 (2022), 12 (2023) and 13 (2024)
G4.S11.A3.2. Update SIP and grant applications systems to be compatible with the new guidelines.	Review of SIP System.
G4.S11.A3.3. Community members and parents freely volunteer services to assist with school activities	% change in the level of voluntary services provided by community members and parents (eg. Cooking for feeding program, leading afterschool activities, engaging with PTA, participating in SIP consultations)

G4.S12. Strategy 12: Expand access to high quality ECE

Challenges to Be Addressed

Community and parental engagement for ECE is only emerging as ECE enrolment increases.

Rationale for the Strategy

Equipping parents, communities, and ECE providers with the right tools for ECE/ECD development of early years children outside of school can help significantly strengthen the role of ECE in FSM, and contribute to achieving its outcomes.

Key Activities and Indicators

G4.S12.A1. ECE Family and Community Engagement

Activities	Indicators
G4.S12.A1.1. Develop guidelines on family and community engagement in the running of ECE classes	Review of guidelines on family and community engagement in the running of ECE classes
G4.S12.A1.2. Develop guidelines for providing training sessions for families and communities to increase their involvement in ECE	Review of guidelines for providing training sessions for families and communities to increase their involvement in ECE

G4.S12.A1.3. Develop guidelines (handbooks) for parents to support ECE children at home; "parents as partners"	% of parents with ECE age children to whom Handbooks have been distributed.

G4.S12.A2. ECE Learning environment

Activities	Indicators
G4.S12.A2.1. Feeding programme extended into ECE	# Meals served, including those to children living with disabilities who have dietary restrictions. Findings from Inspections/Observations.

G5. Ensure That Education is Relevant to the Life and Aspirations of the People of FSM

The fourth high-level goal is intended to achieve the outcome of:

> Improved employability of school leavers as a result of education and training responding to national economic, social and cultural needs

It has been further broken down into several strategies, which in turn include the activity areas and specific individual activities intended to comprehensively achieve the stated outcome. These are further detailed below:

G5.S1. Strategy 1: Expand and Improve national curriculum standards and planning

Challenges to Be Addressed

Few students graduate high school with the technical and/or vocational skills necessary to secure employment. There is inadequate TVET curriculum to prepare students to meet the needs the labour market.

There is no data in FSM records about the relevance of vocational programs to the national economic, cultural and social development needs across the country. Anecdotal data suggests that part of the reason for higher drop-out rates and lower average years of schooling is the lack of relevance of TVET programmes for local industries and job market. The TVET sector needs links between training programs and potential funding support for new and enhanced programs so that relevant facilities can be formed and potential programs implemented.

Rationale for the Strategy

The ESSDP proposes a dual system for TVET, which combines education and training in a formal school setting with work experience and formal apprenticeships undertaken in private sector companies.

Dual TVET programs are well-established in many western countries but not so strongly in the Pacific region. Such programs have contributed greatly to building capacity to meet identified human resource needs in both the private and public sectors. They are also proven to help tackle high rates of youth unemployment and enable more school leavers to enter the job market.

For a dual system to function well, there needs to be a high level of engagement and coordination between the public education programs and commercial and industrial sectors. Training and even budgetary support may need to be provided to companies and workplaces where trainee apprentices will be gaining practical experience and skills for a specified number of days each week. It is common for trainees to be paid a certain percentage of the minimum wage for the job they are learning. The Chambers of Commerce in FSM have already signalled their strong interest and support to collaborate with NDOE in developing a dual TVET education program.

The education (or theory) component of TVET curriculum may be offered within a school established specifically for it or delivered as a stream within the existing secondary school structure. The latter option is attractive because some of the general academic classes taken by the vocational program students overlap with those taken by other secondary students in alternative streams so there are opportunities for students to move between streams if their preferences change. Other trade-specific theory courses will need to be developed.

Key Activities and Indicators

G5.S1.A1. TVET Curriculum Development

Activities	Indicators
G5.S1.A1.1. Conduct a series of DACUM (Developing A Curriculum) workshops on selected skills development programs for identified local experts	Number of workshops undertaken. Number of TVET areas with a fully developed curriculum.
G5.S1.A1.2. Develop and conduct a pilot programs for TVET in selected secondary schools with at least one in each state	Number of pilot programs in each state.

G5.S1.A2. Revision of TVET curriculum

Activities	Indicators
G5.S1.A2.1. Develop recommendations for update to TVET curriculum to ensure relevance to labour market	Gaps analysis of current curriculum
G5.S1.A2.2. Redesign TVET programs and qualifications to have relevance to FSM youth and are in demand by local industries	Number of students enrolled in TVET programs. TVET graduate employment rate.
G5.S1.A2.3. Develop a dual TVET program and introduce it (in collaboration with secondary-schools, COM-FSM, G5.S1.A2.4. Chamber of Commerce, Business Industry and N/SDOE).	Number of TVET strands developed and implemented.

G5.S1.A3. TVET Curriculum Standards

Activities	Indicators
G5.S1.A3.1. Introduce new curriculum outlines in vocational education (Dual VET) in secondary schools from grade 9 through 12.	Curriculum records

G5.S4. Strategy 4: Improve learning environment

Challenges to Be Addressed

Facilities in schools are lacking, particularly in the provision of science laboratories and equipment and the outdated nature of TVET facilities and equipment in secondary schools, which must be updated to match the requirements of the newly proposed dual TVET programmes.

Rationale for the Strategy

Better, more appropriate, facilities will help ensure relevance of the TVET programmes and ensure that students' technical learning remains relevant to the workplace helping them obtain relevant skills and obtain employment faster.

Key Activities and Indicators

G5.S4.A1. TVET Facilities improvement

Activities	Indicators
G5.S4.A1.1. Renovate and upgrade facilities of Pacific Academy for Technical and Trade Skills (PATTS).	% of facilities upgraded at Pacific Academy for Technical Skills (PATSS). Number of TVET programs that can be accommodated at PATTS.
G5.S4.A1.2. Renovate and upgrade secondary school facilities to accommodate at least one TVET program per state.	Number of TVET programs that can be accommodated in each state.

G5.S4.A2. TVET Learning Materials

Activities	Indicators
G5.S4.A2.1. Develop learning materials to support pupils in obtaining foundational knowledge and basic skills in mathematics and language relevant to TVET skill areas.	% of TVET students who demonstrate adequate Attainment and Progress in Mathematics and Language outcomes. Employment Rate.

G5.S5. Strategy 5: Improve efficiency, accountability, and safety of schools

Challenges to Be Addressed

There is currently no consolidated Disaster Risk Reduction (DRR) policy for schools and learning centres in FSM, nor are schools required to assess their vulnerabilities and implement protective measures.

Rationale for the Strategy

Improving DRR centrally, as well as locally within schools, will help build resilience in the long-term, as well as reduce damage, injury, and time requirements for recovery, in case of a disaster striking.

Key Activities and Indicators

G5.S5.A1. DRR

Activities	Indicators

G5.S5.A1.1. Ensure effective school based Disaster Risk Reduction (DRR) Policies are in place, budgeted, implemented and reviewed regularly, to foster resilience in relation to geopolitical, and natural, disasters, including climate related risks, pandemic related risks, and economic factors.	Review of DRR Policies, with special attention for children living with disabilities who might need extra assistance during an emergency

G5.S11. Strategy 11: Increase community engagement in school management, improvement and resourcing

Challenges to Be Addressed

There is no central TVET working committee with the relevant mandate to assess labour needs, decide TVET policy and practice, raise funds for the sector, and evaluate its performance at a federal level. Employers and industries need to be consulted more closely about their requirements so that policy makers can be better informed about needs.

Rationale for the Strategy

Establishing a Committee with such a mandate will help strengthen the role of TVET in the country, as well as ensure its priorities align with those of the local industries and that education remains relevant to the needs and wants of the people of FSM.

Key Activities and Indicators

G5.S11.A1. TVET Working Committee establishment

Activities	Indicators
G5.S11.A1.1. Establish a joint working committee with members from the COM-FSM, Chamber of Commerce, TVET specialists, and NDOE/SDOE specialists to recommend changes to the TVET programmes	Review of working committee structure.

G5.S11.A2. TVET policy

Activities	Indicators
G5.S11.A2.1. Formulate dual VET policy as policy for secondary schools	Review of TVET policy.

G5.S11.A3. Skill Shortages Research

Activities	Indicators
G5.S11.A3.1. Develop a list of skill shortages (job-specific and soft skills) in FSM industries and workplaces for each of the 4 states	Review of list of skills shortages.

G5.S11.A4. Revision of TVET model

Activities	Indicators
G5.S11.A4.1. Involve local industry representatives in reviewing TVET qualifications framework and exploring the potentiality of introducing sandwich and blended apprenticeship programmes	TVET graduate employment rate.

G5.S11.A5. Teacher and Expert Recruitment

Activities	Indicators
G5.S11.A5.1. Prepare a roster of local expert practitioners in key skills areas to assist with teaching of school program	Review of Roster.

G5.S11.A6. Partner Onboarding

Activities	Indicators
G5.S11.A6.1. Sign an MoU with the local business entrepreneurs offering apprenticeships	Number of MoUs signed. Number of apprenticeships established.

G5.S11.A7. Schools and Partners Onboarding for New TVET Curriculum

Activities	Indicators
G5.S11.A7.1. Prepare entrepreneurs to provide guided apprenticeship training within their workplaces	Number of apprenticeships. Employment rate. Business start-up rate.

G5.S11.A8. TVET Fund Raising

Activities	Indicators
G5.S11.A8.1. Apply and raise funds for technical assistance from external sources	Value of funds raised (USD).

G5.S12. Strategy 12: Improve access, quality, and management of ECE

Challenges to Be Addressed

A number of international studies have shown the importance of ECE for improving learning skills and knowledge of early years children and to improve their chances of success in later education. Parents are not always aware of these benefits, and as such may be reluctant or resistant to enrol their children in ECE institutions.

Rationale for the Strategy

Removing these barriers and ensuring better understanding of the benefits of ECE will help increase ECE enrolment, as parents are surer of its relevance and importance to educational success of their children.

Key Activities and Indicators

G5.S12.A1. ECE Awareness Raising Programmes

Activities	Indicators
G5.S12.A1.1. Raise awareness of the value of ECE among parents	% of parents who register their children for ECE enrolment.

G5.S12.A2. ECE Communication & Transportation for Quality Assurance

Activities	Indicators
G5.S12.A2.1. Provide communication equipment to outer island ECE centres	% of Outer Island ECE centres to which communication equipment is supplied.
G5.S12.A2.2. Improve transportation to conduct monitoring of ECE sector and data gathering to/from outer islands	% of ECE settings in outer islands with effective transport links.

3.3. Improving Access and Quality of ECE in FSM

One of the key strategies that cuts across all of the 5 main goals is the strategy focused on the improvement of quality and access to ECE in FSM. The key components of the ECE programme being proposed are reproduced below for reference, however a dedicated annex, which forms an integral part of this ESSDP, titled ECE Programme Outline provides the full detail on the rationale, analysis, and programmatic focus of the ECE programme being proposed.

Programme Objectives and Outcomes

The proposed program area to be funded by the GPE ESPIG will focus on activities which will achieve 1-year compulsory ECE for the 5-year-old in FSM. The decision of this proposal was based on the discussions with the core working group members of each of the 4 states, the NDoE, the consultants who are working on finalizing the ESSDP 2020-2024, the Grant Agent of ESPIG and the Local Education Group. The result of the proposed program perfectly aligns with the strategic decision of the ESSDP 2020-2024 for achieving compulsory ECE and is expected to feed into all 5 sub-goals of the ESSDP (as listed under Section 3.5).

ECE Program Objective and Outcome

- Program Objective: Create learning and developmental foundation of 5-year-old children in FSM, which expected to lead to improved learning outcomes at elementary education (and the subsequent education levels)
- Program Outcome: By 2024, achieve 1-year compulsory ECE for the 5-year-old in FSM

Implementation Strategies and Interventions

Although a mutual agreement has been reached to mobilize the GPE funding to achieve compulsory ECE to the 5-year-old in FSM, the actual design of compulsory ECE in FSM would require further discussions with the states and national stakeholders during the development of the Program Document. Table 6 lists the potential interventions to achieve compulsory 1- year ECE in FSM, which was developed based on the *Build to Last Framework Universal Quality Pre-primary Education* (UNICEF, 2020). The interventions would be decided by taking into account of

the resource implications of each activity, the roles and responsibility of each stakeholder and the domestic and external contributions from partners.

Phase 1: Developing ECE Policy Framework and Enabling Environment

1. Policies and Legislations

1.1. Review and finalize the ECE Policy and legislation framework for making ECE compulsory

1.2. Development of a national roadmap and costed action plan for achieving compulsory ECE for the 5-year-old children in FSM (with a possible long-term vision of achieving ECE access for children ages 3 to 5-years-old)

1.3. Development of a state level roadmap and costed action plan for achieving compulsory ECE in each state

2. Ministerial Leadership

2.1. Assignment of pre-primary responsibility within the NDoE/ SDoE

2.2. Review the governance structures and leadership coordination between the national and state level of government

2.3. Ensure sufficient staff are in place and additionally hire ECE staff where found necessary at national and state level

2.4. Clarification of the shared responsibility between line ministries in ECD

3. Securing Adequate Financing

3.1. Allocate sufficient public funds to support progress towards universal quality pre-primary education

3.2. Establish collaborative arrangements from multiple sources of pre-primary funding

3.3. Establish accountability mechanisms to prevent funds from being misused or misdirected

3.4. Create open access platform to ensure the transparency of the use of government funding on pre-primary education

4. Public Demand

4.1. Create (or review existing) coordination mechanisms with stakeholders (including individuals, civil society organizations, organizations both at national and state level) who are actively engaged in the implementation and advocacy of ECE services

4.2. Design a model of an awareness program which highlights the significance of ECE

Phase 2: Defining the Core ECE Program Components

5. Curriculum Implementation

5.1. Define a pre-primary curriculum framework and content of the curriculum which will be used for compulsory ECE

5.2. Develop effective teaching and learning materials aligning with the defined pre-primary curriculum

5.3. Create implementation plans to disseminate curriculum guidelines widely across sub-sectors in each state (across public and private providers)

6. Workforce Development (teachers and school management)

6.1. Establish a strategy for recruiting pre-primary teachers based on clearly defined staff qualification requirements and competency profiles

6.2. Review and define the professional competencies and standards for ECE professionals (including initial qualification requirements)

6.3. Establish a systematic pre-service training programme for ECE teachers

6.4. Establish a system for teacher recognition and accreditation of pre-service teacher training programs

6.5. Establish a systematic in-service training programme (Continuous Professional Development) for ECE teachers

6.6. Put in place a mechanism to monitor working conditions of teachers and ensure they are favourable and supportive

7. Family and Community Engagement

7.1. Develop policies and guidelines for parental and community engagement

7.2. Develop a communication strategy and conduct community outreach and awareness raising campaigns through media and communication channels

7.3. Support Initiatives to help families create positive home-learning environments are a part of the pre-primary subsector.

7.4. Conduct parent support programmes (outreach programmes) especially by prioritizing the most disadvantaged and vulnerable families

7.5. Pre-primary teachers and other personnel are effectively trained and supported to engage families and communities

8. Quality Assurance

8.1. Establish comprehensive standards for service quality

8.2. Establish functional quality assurance mechanisms and feedback mechanism based on the service standards and overarching goals

8.3. Ensure sound data collection tool (FedEMIS) and the means of communication for monitoring (e.g. Radio) are in place to monitor the progress of ECE

9. Learning Environment

9.1. Review the conditions of the existing ECE classrooms and improve the condition where repairment/ additional classroom construction is needed

9.2. Develop a sustainable school feeding strategy by taking into account the in-kind support of parents and communities

Expected Benefits and Challenges for Achieving Compulsory ECE

Expected benefits for achieving compulsory ECE

Compulsory ECE will expand access to areas without ECE
Children who are living in locations without ECE will benefit from the newly established ECE classes (especially those in the outer islands)

Compulsory ECE will improve pupil's attendance
Even though many children enrol in ECE at the beginning of the school year, some eventually stop coming. Compulsory ECE will decrease the drop-out rate.

Compulsory ECE will improve school readiness skills for all children
Children who enrol in ECE will show significant difference in their learning foundations when they enter elementary education, compared with the children who did not

Compulsory ECE will improve the health and wellbeing of children, family and community
ECE creates a platform to share information on childcare, health and wellbeing to the parents and communities, and ensures the children's wellbeing by providing health screening

Compulsory ECE will give recognition to the value of ECE
With ECE currently not being compulsory, other compulsory education levels are prioritized when budget allocations are decided at the state level. Compulsory ECE will lead to ECE receiving equal attention and support, as much as the other education levels are receiving.

Compulsory ECE will improve the quality of ECE
Compulsory ECE will lead to the development of specific policies and standards on ECE, leading to improve the quality of ECE, especially in the challenged areas

Expected challenges foreseen for achieving compulsory ECE

Extra financial and human resource required
Additional resources are required to upgrade the existing ECE infrastructure to a certain quality standard which will accommodate the increased number of children and maintain the running of the newly established ECE classes

Challenges in establishing new ECE classes in islands with limited number of children
Need to consider modalities of delivering ECE in the outer islands where there are a limited number of 5-year-old children

Challenges in securing enough quantity of teachers

Some states are already facing difficulties in securing enough number of teachers especially in the outer island areas. Review of the current qualification requirement and mitigation measures need to be considered to fill in gaps of the expected number of ECE teachers

Quality of teachers needs to be secured
Pre-service and in-service training of ECE teachers need to be developed to ensure the quality of compulsory ECE

Different expectations toward ECE should be managed
Expectations about what ECE can provide, are varied among the parents, communities and even the elementary school teachers.Awareness raising about ECE should be accurately disseminated

Monitoring mechanisms to be considered
Monitoring mechanisms to cover the increased number of ECE classes needs to be considered (by taking into consideration the limited transportation to outer islands)

Delivering feeding/ snacks programs
Strategy to be in place on how to deliver feeding/ snack programs, not only to the increased number of ECE classes but also to ECE currently without any feeding/ snack provision

How Are Proposed Interventions Aligned with GPE Strategic Goals

The following is the list of the GPE Strategic Goals for 2016 to 2020 and the respective core indicators to measure the achievements.

GPE Strategic Goals (from GPE Strategic Plan 2016-2020)

1. Improved and more equitable learning outcomes
    a. Improved learning outcomes at elementary level
    b. More children under 5 years developmentally on track in health, learning and psychosocial wellbeing
2. Increased equity, gender equality and inclusion
    a. Improved elementary and lower secondary completion rates, total and by gender
3. Effective and efficient education systems
    a. Increased public expenditure on education
    b. Improved ratios of pupils to trained teachers
    c. Improved data reporting

The proposed program for achieving compulsory ECE in FSM aligns and contributes to all three strategic goals, by achieving the following.

- Have more children under 5 years developmentally on track in health, learning and psychosocial wellbeing

- Create learning and developmental foundation of 5-year-old children in FSM, which is expected to lead to improved learning outcomes and completion in elementary education
- Improved pupils to trained teacher ratios by establishing a comprehensive training mechanism for ECE teachers

3.3. Relationship between ESSDP Goal, Sub-goals and PACREF

In Chapter 2 above, it was noted that the ESSDP should be aligned with the PacREF in a manner that allows cooperation to occur between Pacific Island countries, but also recognizes that FSM has specific idiosyncrasies that require the preparation of its own distinctive education sector plan. PacREF's four key broad policy areas of Quality and Relevance; Learning Pathways; Students Outcomes and Wellbeing; and Teacher Professionalism each have a specific goal and a policy objective. These relate closely to the overall goal and sub- goals of the ESSDP. The overlaps are shown in Table 4 below.

Table 9: Comparing ESSDP goal with PacREF goals and objectives

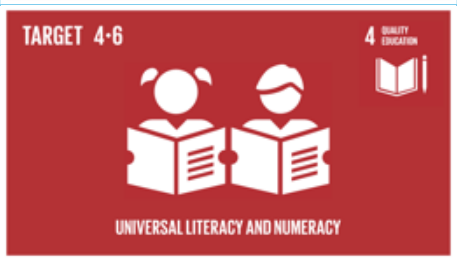
<table>
<tr><th>ESSDP (2020–2024)</th><th colspan="4">PacREF (2018–2030)</th></tr>
<tr><th>Goal</th><th>Goal 1</th><th>Goal 2</th><th>Goal 3</th><th>Goal 4</th></tr>
<tr><td>Improve the quality of learning at all levels in safe, climate-resistant learning environments</td><td>All learners are provided with a safe and supportive environment, within which they are offered high quality learning opportunities that are meaningful, valuable, inclusive and future-focused</td><td>All learners have equal access to multiple and seamless pathways and modalities of learning that will allow them to meet their full potential</td><td>All learners acquire the knowledge, skills, values and attributes to enable them to contribute to their families, communities and to nation building</td><td>Competent, qualified and certified teachers and school leaders who are current in their professional knowledge and practice and who are supported, engaged, effective and committed to the development of their students</td></tr>
<tr><th>Sub-Goals</th><th colspan="4">Policy Objectives</th></tr>
<tr><td>1 Provide high quality relevant programs for learners at all levels of education</td><td>1 High quality relevant programs are provided for learners at all levels of education</td><td>2 Learners' needs are met through a broad range of programs and delivery modalities</td><td>3 Learners at all levels of education achieve their full potential</td><td rowspan="2">4 The teaching profession is supported and empowered through opportunities for continuous development, shared understanding & accountability</td></tr>
<tr><td>2 Improve the quality of teachers and teaching at all levels</td><td></td><td></td><td></td></tr>
<tr><td>3 Maintain consistent performance monitoring and data-based decision-making systems</td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td></tr>
<tr><td>4 Strengthen the participation of communities in the management of schools</td></tr>
<tr><td>5 Ensure that education is relevant to the life and aspirations of the FSM people</td></tr>
</table>

3.4. Relationship between ESSDP Goal, Sub-goals and SDG4

The goals and targets of the ESSDP are also aligned with the SDG4 goals. This is to ensure FSM's commitment to the Sustainable Agenda and also to engage with international metrics. At the moment, FSM is on- track to report on 3 out of 11 targets in the SDG4 for education. Data for the other 8 targets has substantial gaps and/or is derived from secondary sources. To address this the NDOE is looking to expand the FedEMIS to allow reporting against the SDG4 targets and in 2020, FSM will participate in a formal external national review of progress and issues in its efforts to meet the SDG expectations. Furthermore, the individual indicators for activities comprised in this ESSDP have been mapped against the SDG4 indicators to further align national strategy and global Sustainable Development Agenda. The table below details the alignment.

Table 10: Aligning the ESSDP goals and sub-goals with SDG4 targets

SDG4 Target	Linked ESSDP Strategies
	Strategy 5: Improve efficiency, accountability, and safety of schools
	Strategy 12: Expand access to high quality ECE
	Strategy 1: Expand and improve national curriculum standards and planning
	Strategy 1: Expand and improve national curriculum standards and planning

	Strategy 3: Ensure equity of access to education **Strategy 6:** Provide training and certification to teachers and school leaders
	**Strategy 6:** Provide training and certification to teachers and school leaders
	Strategy 2: Develop and distribute new learning materials and packages
	Strategy 4: Improve learning environment
	N/A
	Strategy 8: Provide high-quality training and certification to teachers and school leaders

The SDG4 was also mapped at the level of individual targets and SDG4 indicators were mapped onto the ESSDP indicators as far as possible, the detailed match is included in the M&E Framework and Costing model appended to this ESSDP and is not reproduced here in the interest of succinctness.

Chapter 4: Managing Implementation

4.1. Summary

The ESSDP offers an overarching strategic framework and rationale behind the sector priorities for the next 4 years. It also models the costing of the selected outcomes and outputs, considering the continued operating costs of the sector and establishing the gap in funding required to deliver them.

The implementation of the ESSDP itself will be carried out through various entities and stakeholders responsible for education service delivery in FSM. This may be the NDOE and associated entities at the federal level or SDOEs and associated entities at the state level. Overall, the ownership and accountability will be decentralized and as close to the source as possible, to foster ownership and accountability.

Detailed programmes and budgets for implementation of individual activities and outcomes will be developed by the relevant institutions in their annual workplans. The ESSDP provides the starting point for this level of planning and the priorities established in the ESSDP will be taken forward in these respective institutional plans.

4.2. Timeline and Sequencing

The detailed sequence of interventions and activities will be developed by the individual institutions and stakeholders in their annual development and business workplans, with this ESSDP serving as the overarching framework and accountability tracker for the implementation of all key activities and milestones.

The activities included in the M&E Framework have all been broken down further as appropriate into specific cost items, which have been allocated deadlines and responsible individuals. These will serve as high-level milestones and deadlines for individual activities as well as for the delivery of overall strategies and outcomes.

Prior to this, the capacity of the current system and FedEMIS in the FSM are limited, particularly with regards to collecting and reporting data related to ESSDP implementation. As such, strengthening the capacity and improving the functionality of the system will be given a particular priority during the implementation of this ESSDP.

4.3. Institutional arrangements for a sector-wide approach

The implementing agency for the ESSDP will be the National Department of Education (NDOE) working closely with each of the 4 state departments of education (SDOE). A dedicated working group: Education Sector Working Group (ESWG) has also been created and consists of the Assistant Secretaries of Education as well as the designated focal point identified in each SDOE. As part of the sector plan preparation, each state Director of Education assigned a focal point person for the purpose of developing the sector plan, and these 4 persons will be responsible for liaison with stakeholders in each state during initial stages of implementation. The overall oversight of the ESSDP should be the responsibility of the FSM Association of Chief State School Officers (FACSSO) which is the most appropriate body for such a task.

The ESSDP will be managed by a small national level working group consisting of the Assistant Secretaries of the NDOE and four state DOE representatives. NDOE and SDOE will organize sessions for public dissemination of the ESSDP in its initial implementation phase, including distribution of the sector plan and explanation of its purpose and coverage. This will help raise the level of awareness, ownership and readiness for the implementation of the ESSDP.

The working group will also ensure that regular monitoring of the implementation occurs, and a formal **annual review** is undertaken (ideally during the Micronesia Teacher Education Conference (MTEC)). The ESSDP is a rolling plan prepared by NDOE and is designed to coincide with the budget cycle of FSM. The ESSDP will be reviewed at mid-term in 2022 to ensure that it is still relevant and responsive to the needs of FSM's education system.

4.3.1. Coordination with other Ministries

There are a number of areas where the delivery of education services affects or is affected by the agendas of other ministries and government bodies. Effective coordination, planning, and implementation of these cross-links will help ensure transparency and avoid wasteful duplication of effort.

The coordination will be achieved by building formal cross-ministerial/agency structures as well as by ongoing monitoring and reporting of cross-agenda risks and issues. The NDOE and SDOEs will establish formal links for reporting and discussion with relevant agencies, particularly with the following:

- Department of Finance and Administration: on issues relating to budgeting, grants, and financial planning;
- Department of Health and Social Affairs: on issues relating to school feeding programmes, WASH, student health and health education, socio-economic issues;
- Department of Justice: on issues pertaining to children's rights;
- Department of Environment, Climate Change and Emergency Management: on issues pertaining to DRR, contingency planning, and environmental/climate change education;
- Dept of Communication, Transportation and Infrastructure.

Inputs from the relevant government departments will be considered to guide further implementation and progress on relevant programme areas.

4.3.2. Action Plan

A central Action Plan has been developed and made integral in the M&E Framework and Costing model to improve transparency and facilitate reporting and record keeping. Individual stakeholders and state agencies, however, will be encouraged to develop and/or integrate ESSDP goals and activities into their own workplans and action plans, to facilitate the implementation process at the ground level.

For further details on the Action Plan and its use, please refer to chapter 6 on Monitoring and Evaluation.

4.3.3. FedEMIS data

The availability of reliable and comprehensive data from the Education Data Digest (EDD) is critical to enable effective M&E of the ESSDP implementation. The annual school census included in the EDD will provide national and state data to track the progress of key indicators. This will be further reviewed and expanded to include data for newly included indicators specific to this ESSDP, to make sure that progress on these indicators can be easily monitored and analysed.

As stated in the ESSDP, both the NDOE and the SDOEs will be responsible for conducting relevant research activities to generate evidence and obtain objective data to enhance management decisions and to determine the effect of various intervention strategies implemented to support the sector plan. The research and evaluation agenda will aim to promote organizational learning in the NDOE and SDOEs and will help to harness the expertise of local researchers to provide data that can be used to improve the quality of learning outcomes, equity, and management of the whole sector.

Chapter 5: Resource Requirements

5.1. Overview

In order to prepare a robust costing to support the ESSDP, and the different strategies that comprise it, they were further systematically broken down into individual discrete activities, each of which was costed individually to arrive at an estimate of the financial resourcing required.

This process was led by international experts with consultations from the SDOEs and the NDOE, as well as sector specialists.

This resulted in the development of a responsive simulation model and associated costing which can be further adapted by the relevant working group members in response to further information and any operational changes in requirements. It also allows for its underlying assumptions to be tested and verified independently by external evaluators.

Throughout this process a consideration was also given to the proportion of the activities that can be delivered using existing and planned resources and the remaining portion which represents a current 'Funding Gap'. This was done with consideration to the existing and planned capacity and by assuming self-reliance as far as possible.

The following chapter provides a detailed overview of the costing that underpins the strategies and outcomes of this ESSDP, as well as the existing gap. Detailed breakdown of the costing and assumptions is included in the M&E Framework and Costing Model appended to this ESSDP as a separate document.

5.2. FSM fiscal framework and funding sources

The FSM is a federation of individual states, with a decentralized fiscal framework, where service delivery functions are delegated to the states. The national level agencies are primarily concerned with policy making, regulation and oversight. The financial reporting year ends on September 30th.

The National Department of Education (NDOE) is assigned a budget that, for 2017-18, was 1,600,811 USD that is financed from domestic revenues, COFA and supplemental education grants also from the USA.

The bulk of education spending is carried out by the State Governments of Chuuk, Kosrae, Pohnpei and Yap. This is currently mostly funded by external revenues, chiefly the COFA grants, supplementary education grants and other federal funding grants. Some states use small amounts of their own source revenue for education. Some small amounts are sourced from development partners and from ADB through the Improving the Quality of Basic Education (IQBE) Project.

Oversight of grant flows to State Governments and performance is carried out by the Budget Office in the Office of Compact Management. State Departments of Education are required to report quarterly on performance and spending to the Department of Finance and Administration (DOFA) so that data can be conveyed to the United States Department of Interior and the Joint Economic Management Committee (JEMCO) meetings. JEMCO requires State Departments of Education to report against 21 defined indicators with reliable verifiable data.

The budget call circular goes out to the national and state governments in December each year when estimated Compact grants are known; budget proposals are expected to be submitted by March 15th of the following year. Consultations with states are then scheduled for late May and early June. A final budget submission is submitted to the USA Department of Interior on 1st July. Decision making on Compact funding and the total budget resource availability tends to be resolved toward the end of August each year.

Budget appropriations are usually adopted prior to the second week of October by the national and state Legislatures.

The revenue and expenditure data (see table below) represents actual receipts and spending from 2016, 2017 and 2018. Additional detailed data for education spending was obtained from DOFA.[15]

The available data indicates that the FSM government is now increasing its own source revenues in response to the potential cuts being flagged in USA government grants. However, it is apparent that the education share of total expenditures across the FSM has been decreasing in recent years.

Table 11: Government of FSM Receipts and Payments (in USD)[16]

Revenue	2018	2017	2016
Own source Revenue	240,972,795	185,652,053	141,443,713
Grants from the United States	100,977,291	132,484,584	108,593,639
Total FSM Government Receipts	341,950,086	318,136,637	250,037,352

Expenditure	2018	2017	2016
Education Expenditure	39,375,455	45,668,979	45,126,490
Health	42,080,995	35,290,066	34,239,079
Transport Communications & Infra	19,276,128	32,607,031	17,665,374
Finance and Administration	24,550,215	25,734,418	23,402,438
Other Appropriations	25,762,762	16,892,863	11,411,945
Other Expenditure	76,545,035	81,564,133	76,162,413
Total Expenditure	227,590,590	237,757,490	208,007,739

Shares of Expenditure	2018	2017	2016
Education / Total	17.3%	19.2%	21.7%
Health / Total	18.5%	14.8%	16.5%
TCI / Total	8.5%	13.7%	8.5%
Finance and Administration	10.8%	10.8%	11.3%
Other Appropriation	11.3%	7.1%	5.5%
Other Expenditure	33.6%	34.3%	36.6%

[15] Deloitte Touche LLP - Combined Financial Statements and Independent Accountants Report 2018, 2017, 2016
[16] Deloitte Touche LLP - Combined Financial Statements and Independent Accountants Report 2018, 2017, 2016

The education share of gross domestic product shown in the table below is quite high for FSM when compared to other Pacific Island countries. The share of GDP going to Education ranges from a low of 3.4% in the Cook Islands to a high of 10% in the Solomon Islands and Kiribati.[17]

Table 12: Education Expenditures and GDP[18]

	2018	2017	2016
GDP	367,286,114	350,886,765	329,895,643
Education/GDP	10.7%	13.0%	13.7%

The sources of funding together with the actual expenditures on education by FSM state and national governments in the past 3 years have been as follows.[19]

Table 13: Funding sources and education expenditure

Revenue	2018	2017	2016
Funding Sources for Education	2018	2017	2016
General Fund	4,279,123	3,995,833	7,069,286
Financed by Grants	34,230,987	40,983,727	37,731,313
State General Funds	399,896	142,099	228,624
Other Government Fund	465,449	547,320	97,267
Total	39,375,455	45,668,979	45,126,490

Expenditure by SDOEs & NDOE	2018	2017	2016
Chuuk	15,516,970	16,255,162	15,455,727
Kosrae	4,160,287	3,951,990	4,442,766
Pohnpei	12,106,402	11,767,573	10,939,830
Yap	6,143,494	7,371,361	6,089,006
National	1,448,302	6,322,893	8,199,161
Total	39,375,455	45,668,979	45,126,490

Table 13 below shows that there has been a failure by the states to spend the available grant funds. Expenditure could have been much higher each year as grant funds in excess of the amounts shown above were available but were not spent. The proportion of available grant funding actually utilized by the state DOEs is shown in the table below.

Table 14: Proportion of available grants utilized by SDOEs

	2018	2017	2016
Chuuk	76%	75%	77%
Kosrae	88%	81%	92%
Pohnpei	93%	85%	97%
Yap	81%	82%	76%
Total	83%	80%	84%

[17] UNESCO 2015 Pacific Education for All Review
[18] Graduate School USA's Economic Monitoring and Analysis Program Economic Review FSM Fiscal Year 2017
[19] Deloitte Touche LLP op.cit

This failure to spend the grant funds has been attributed primarily to the regulations on spending imposed by the Compact agreement being too onerous leading to difficulties for states to meet procurement requirements, performance reporting and financial reporting. Some schools were also unable to meet accreditation requirements, which also limited the amount of funding they could draw on. There is an additional requirement for funds to be spent only on certified teachers, but this has been waived in recent years and has not been enforced.

5.2.1. Summary of current status of funding arrangements

In 2003, the United States amended the COFA with the FSM, whereby economic assistance in the form of Compact grant funding overseen by the US Department of the Interior for the fiscal years 2004 through to 2023 was to decrease annually. The amount of the annual decrease in grants was added to the annual U.S. contributions to the Compact Trust Fund, managed by a joint US-FSM trust fund committee and chaired by the Department of the Interior's Director of the Office of Insular Affairs.

Trust fund earnings were intended to provide a source of income for FSM after compact grants and supplemental education grants (SEG) ended in 2023. FSM would no longer be eligible for some programs that the SEG replaced, including Head Start (early childhood education, health, and nutrition services for low-income children and their families). Some US agencies, such as the National Weather Service, Federal Aviation Administration and the US Agency for International Development (USAID) may continue to provide programs and services but the extent of such services is not yet known. FSM generally remains eligible for other programs including the US Department of Agriculture (USDA) Rural Utilities Service grant loan programs, the US Department of Education Pell grants for higher education, and grants under Part B of the *Individuals with Disabilities Education Act* for children with disabilities.

From fiscal year 2024 onward, the maximum allowed disbursement from the trust fund is designated as the amount of the fiscal year 2023 annual grant assistance, with full inflation adjustment. In addition, the trust fund committees may approve additional amounts for pressing needs.

The US Government Accountability Office (GAO) reported in May 2018 on (a) the use and role of U.S. funds and programs in the FSM, (b) projected compact trust fund disbursements and (c) recommended trust fund committee actions needed to address the 2023 transition to trust fund income. To date, no recommendations have been implemented and the Government of the FSM does not yet know details of funding that might potentially be available from the trust fund prior to preparation of the 2024 budget.

It is known that FSM grant assistance should total $62.6 M in 2023 and the contribution to the Trust Fund should be $29.6 M

In testimony, summarizing the May 2018 report delivered to the Committee on Energy and Natural Resources of the U.S. Senate, in July 2019, the GAO said '…as 2023 approaches, questions remain about the FSM's and RMI's ability to successfully transition to greater self-reliance when the 20 years of US compact economic assistance ends…'

The GAO also said that '…our May 2018 projections for the FSM and RMI compact trust funds after 2023 indicate that, given their balance at the end of fiscal year 2017 and current compact trust fund rules—the baseline scenario—the funds will be both:

- Unable to provide maximum disbursements (equal to the inflation-adjusted amount of annual grant assistance in 2023) in some years, and
- Unable to provide any disbursement at all in some years, with the likelihood of zero disbursement in a given year increasing over time...'

With those developments in mind, it is envisioned that the funds available to FSM for education may be as follows, considering all the different source:

Table 15: Projected Costs & Funding by Source of Origin (USD)

By State & NDOE	2023-2024	2024-2025
Chuuk	16,796,067	17,131,989
Kosrae	4,503,228	4,593,293
Pohnpei	13,104,359	13,366,446
Yap	6,649,915	6,782,914
NDOE	1,567,689	1,599,042
Total IQBE	746,904	-
Total base costs including IQBE	$43,370,186	$43,475,708
Local Funding	$6,505,528	$6,521,356
Possible Trust Funding	$20,530,000	$20,530,000
Possible US grant funding	$4,484,000	$4,484,000
ADB	$746,904	$0

5.3. Base Line Financial Projections

The following base line financial projections shown in Table 11 have been developed from past financial statements assuming an inflation rate of 2.5% as projected in the 2018 Fiscal and Economic Outlook and assuming no change in activities.

Table 16: Financial Projections

By State & NDOE	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Chuuk	15,827,309	16,143,856	16,466,733	16,796,067	17,131,989
Kosrae	4,243,493	4,328,363	4,414,930	4,503,228	4,593,293
Pohnpei	12,348,530	12,595,501	12,847,411	13,104,359	13,366,446
Yap	6,266,364	6,391,691	6,519,525	6,649,915	6,782,914
NDOE	1,477,268	1,506,813	1,536,950	1,567,689	1,599,042
Base Costs	40,164,984	40,968,244	41,787,570	42,623,282	43,475,708

IQBE[20]	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Teaching resources	956,971	533,048	342,525	287,789	
Capacity Building	393,788	223,249	188,470	131,623	
Equipment	70,319	23,288	22,575	9,992	
Consulting Services	83,822	59,133			
Project Support	517,500	417,500	317,500	317,500	
Total IQBE	2,022,400	1,256,218	871,070	746,904	

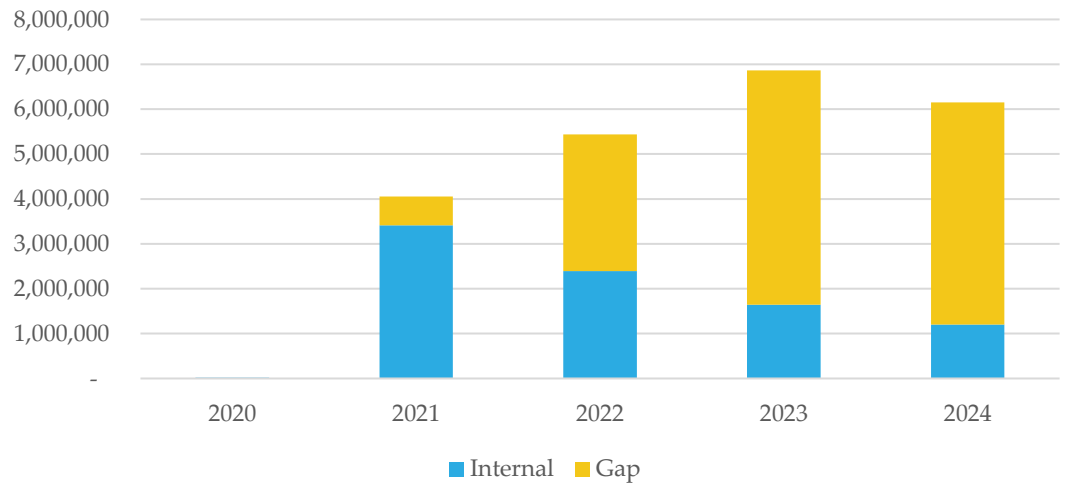
[20] The data on the IQBE project has been drawn from the IQBE Project Administration Manual.

Grand Total	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Total base costs including IQBE	42,187,384	42,224,462	42,658,640	43,370,186	43,475,708

5.4. ESSDP Costing Projections and Funding Gap

The ESSDP costing model was developed by first undertaking to cost individual component activities, categorising activity-level expenditure by key categories of cost (e.g. labour, infrastructure and construction, training, etc.), and then working with the NDOE to estimate the proportion of each activity that could be implemented with existing NDOE resources (human, financial, and otherwise). Importantly, labour costs were estimated by first establishing daily costs per member of staff (dividing annual remuneration by annual working days), and then estimating the quantity of internal person days required for effective implementation of the ESSDP component activity.[21]

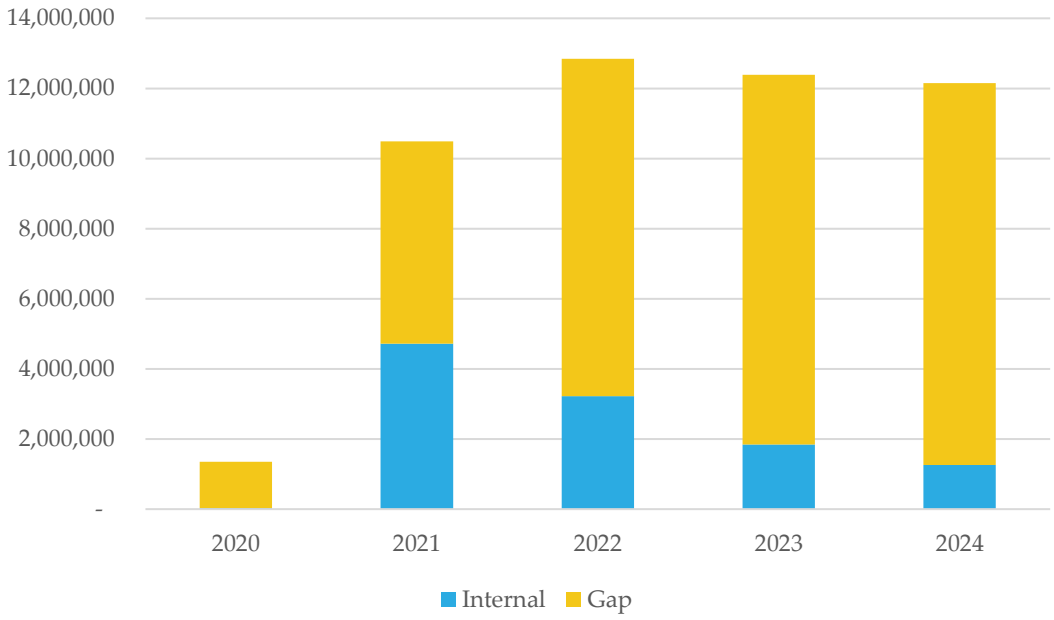
Figure 3: Resourced components vs components requiring external funding of ESSDP (USD) for Labour + Travel



As can be seen from the chart below, in terms of the labour and travel expenditure, the gap required to deliver the ESSDP comprehensively increases significantly in the later years of the ESSDP. The same trend can be observed for the gap in funding across all costing categories:

[21] Please note that all figures included in this section contain the activity of making ECE compulsory for all 5 year olds. This is by far the costliest individual activity, and as such has been costed on the basis of three different scenarios: low, mid, and high, the details for which can be found in the ECE Programme Summary and the M&E Framework and Costing model. For simplicity all costs related to making ECE compulsory have been allocated to the Infrastructure category of expense, and the numbers included below include the 'Mid' level scenario, in which the compulsory ECE activity accounts for between $1.3M and 4.2M USD in the costing each year, or $13.9M USD in total over 5 years.

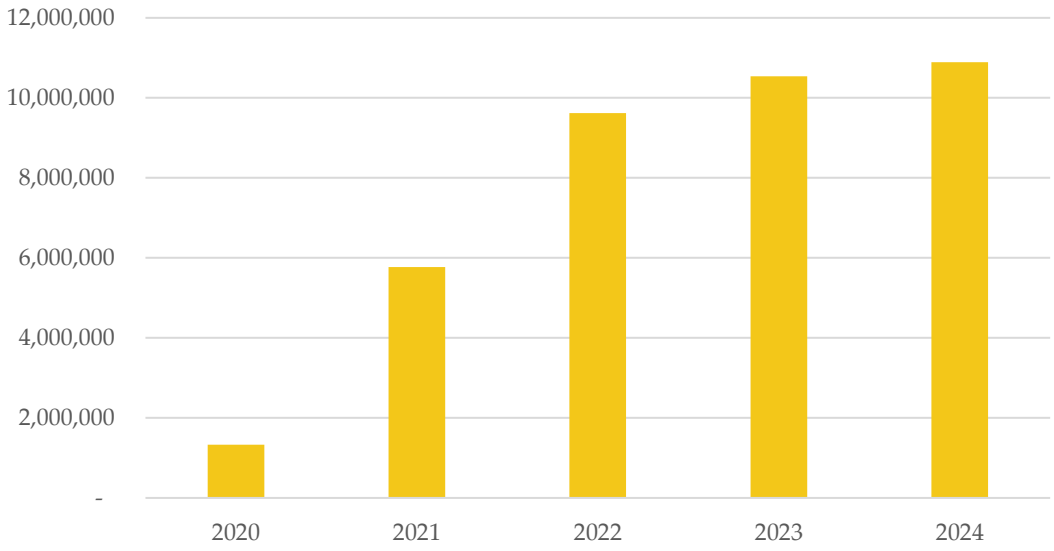
Figure 4:Resourced components vs components requiring external funding of ESSDP (USD) overall



The total cost to implement the ESSDP has been calculated to be: **$49,232,231 USD.**

The following chart details the funding gap on its own:

Figure 5:Overall gap in funding of the ESSDP by year



As is seen from the chart, the funding gap scales quickly between 2020 and 2024, rising from <$2M to almost $11M annually by 20203. The total funding gap identified over the course of the ESSDP is **$38,152,115 USD**. The proportion of this gap allocated to different cost categories (e.g. tuition grants, construction, TLMs, etc.) can be found in subsequent sections.

5.5. Costing by Category of Expenditure

The following tables summarize ESSDP activity costs, and funding gap, by key categories of expenditure:

Table 17: Total ESSDP Cost by Type of Expenditure

Type	2020	2021	2022	2023	2024	Grand Total
Labour+Travel	19,060	4,052,446	5,437,860	6,862,821	6,150,180	**22,522,366**
Consultancy	31,500	2,384,000	1,834,000	669,416	368,400	**5,287,316**
Equipment+Materials (Other)	840	856,353	758,667	730,267	728,667	**3,074,793**
TLMs	-	-	-	-	158,512	**158,512**
Infrastructure	1,304,083	2,437,722	3,375,536	3,924,445	4,410,568	**15,452,354**
Grants	-	46,000	46,000	46,000	46,000	**184,000**
Training	-	714,470	1,389,550	156,470	292,400	**2,552,890**
Total	**1,355,483**	**10,490,990**	**12,841,612**	**12,389,419**	**12,154,727**	**49,232,231**

Table 18: Funding Gap by Type of Expenditure

Type	2020	2021	2022	2023	2024	Grand Total
Labour+Travel	-	641,294	3,041,940	5,217,356	4,948,440	**13,849,030**
Consultancy	24,500	2,384,000	1,827,000	667,316	368,400	**5,271,216**
Equipment+Materials (Other)	-	247,153	750,667	726,667	726,667	**2,451,153**
TLMs	-	-	-	-	158,512	**158,512**
Infrastructure	1,304,083	1,889,272	2,862,436	3,743,845	4,354,568	**14,154,204**
Grants	-	46,000	46,000	46,000	46,000	**184,000**
Training	-	562,400	1,088,250	141,750	292,400	**2,084,800**
Total	**1,328,583**	**5,770,119**	**9,616,292**	**10,542,934**	**10,894,987**	**38,152,915**

The largest funding gap overall arises in the area of infrastructure, the majority of which is driven by anticipated ECE expenditure (please see footnote number 15 for explanation). After that Labour and Travel represent the category most lacking internal funding, followed in descending order by Consultancy, Equipment and Materials (other), Training, Grants, and TLMs.

5.6. Costing by Subsector

The costing model has also permitted the expenditure to be broken down by education subsector. The tables below present the results:

Table 19: Total ESSDP Cost by Education Sub-Sector

Sectors	2020	2021	2022	2023	2024	Sector Total
General	41,940	1,747,776	2,016,737	1,284,290	1,254,777	**6,345,518**
ECE	1,304,083	3,299,285	3,711,136	4,183,645	4,674,168	**17,172,317**
Elementary	-	2,510,785	4,448,425	5,756,075	5,284,375	**17,999,660**
Secondary	-	2,480,475	1,975,425	754,325	454,375	**5,664,600**
TVET	9,460	452,670	689,890	411,084	487,032	**2,050,136**
Total	**1,355,483**	**10,490,990**	**12,841,612**	**12,389,419**	**12,154,727**	**49,232,231**

Table 20: Funding Gap by Education Sub-Sector

Sectors	2020	2021	2022	2023	2024	Sector Total Gap
General	24,500	1,141,942	1,368,757	949,624	947,557	**4,432,380**
ECE	1,304,083	2,536,717	3,280,716	3,867,775	4,386,528	**15,375,819**
Elementary	-	903,755	3,587,395	5,171,445	4,967,355	**14,629,950**
Secondary	-	931,075	1,169,795	273,595	137,355	**2,511,820**
TVET	-	256,630	209,630	280,494	456,192	**1,202,946**
Total	**1,328,583**	**5,770,119**	**9,616,292**	**10,542,934**	**10,894,987**	**38,152,915**

Consistently with previous analysis, the largest gap identified is in ECE, which is largely driven by the compulsory ECE education activity. Beyond that, the largest gaps in funding by subsector are identified in the following descending order: Elementary, General, Secondary, and TVET sectors.

Finally, the costing model also allows for achieving a costing breakdown by federal vs specific state expenditure, though at the level of the M&E framework the vast majority of expenditures have been so far allocated at the federal level. To make the model useful the states will undertake a further validation exercise during which the overall expenditures will be further sub-divided into state-level expenditures.

5.6. Costing Model Limitations

It should be noted that cost modelling is an inexact science, and is subject to a wide variety of variables and predictions, which are affected by unforeseen developments, limited data, and human error. As such the costing model developed for this ESSDP should be considered in the light of its underlying assumptions, and the data that it draws on. Though every care was taken by the consultant and the NDOE to provide accurate and reliable estimates that best represent the anticipated cost of implementing this ESSDP, and are thus as robust as possible, there have been limited opportunities for extended data validation. It is also likely that during implementation additional areas of focus will emerge as essential or even pre-requisite for the delivery of the outcomes stipulated within this ESSDP, which is thereby non-exhaustive. The model that has been built, however, is structured and presented in such a dynamic way that should make procedural adjustments easy to implement and immediately inter-link them with the action plan and M&E matrix for further implementation monitoring and evaluation. It is therefore important to emphasize that this is intended to be a working document, to be consistently revised, revisited, and improved, over time.

Chapter 6: Monitoring and Evaluation

6.1. ESSDP Performance Monitoring

Effective monitoring of the ESSDP at all levels is essential to ensure that:

1/ Resources provided for the ESSDP are being directed efficiently both to the implementation of the development programs and to meet the ongoing recurrent expenditure needs of the sector;
2/ Programs and activities are taking place as and when intended;
3/ The program outputs are being achieved as and when intended;
4/ Programs are achieving their intended outcomes.

A detailed Monitoring and Evaluation (M&E) Framework is appended to this ESSDP as a fully integrated Costing, Monitoring & Evaluation Framework, and Action Plan, in the form of a Microsoft Excel Spreadsheet file:

Figure 6: Screenshot of the M&E Framework

Monitoring and Evaluation Framwork

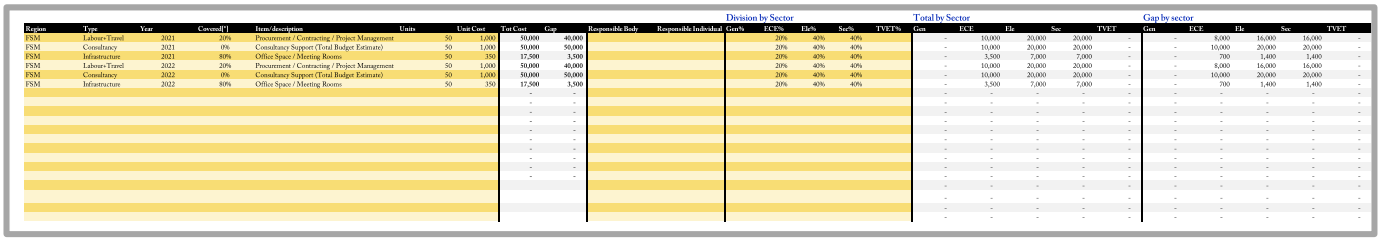
UID	Lvl	Ch	Goal	Outcome	St	Strategy	AA	Activity Area	Act	Activities New	Targets Overall	Targets SDG4 Target	Indicators PSM	Indicators SDG4 Indi
G1-S1-A1.1	O	1	Improved Student Learning Outcomes	Improved student learning outcomes, particularly in literacy and numeracy, at all levels with increased numbers of students, including those with special needs, attending school and experiencing quality educational opportunities	1	Expand and improve national curriculum standards and planning	1	VLA curriculum	1	Expand VLA national curriculum standards and benchmarks documents for K to Grade 12 that guide the provision of state standards by 2022	Expansion of VLA national curriculum standards and benchmarks in the Vernacular Language Arts (VLA) for Kindergarten to Grade 12 is Achieved by 2022. A minimum of 6 Grades completed annually until completion, with records maintained annually in EMIS.		Verification demonstrates that VLA documents for K-grade 12 tested, placed on file in NDOE and distributed to states. Number of Grades for which this process is complete. Findings reviewed annually and recorded centrally in EMIS.	
G1-S1-A1.2	O	1	Improved Student Learning Outcomes	Improved student learning outcomes, particularly in literacy and numeracy, at all levels with increased numbers of students, including those with special needs, attending school and experiencing quality educational opportunities	1	Expand and improve national curriculum standards and planning	1	VLA curriculum	2	Develop and deliver training on updated VLA curriculum standards	Recipients of VLA curriculum standard training demonstrate a strong knowledge of the relevant standards, with findings recorded in EMIS.		Verification demonstrates that recipients of VLA curriculum standard training demonstrate a strong knowledge of the relevant standards, with findings recorded in EMIS.	
G1-S1-A1.3	O	1	Improved Student Learning Outcomes	Improved student learning outcomes, particularly in literacy and numeracy, at all levels with increased numbers of students, including those with special needs, attending school and experiencing quality educational opportunities	1	Expand and improve national curriculum standards and planning	1	VLA curriculum	3	Monitor implementation of VLA curriculum standards	Implementation of VLA curriculum standards to be effectively monitored, with findings recorded annually in EMIS.		Verification demonstrate that implementation of VLA curriculum standards is effectively monitored, with findings recorded annually in EMIS.	
G1-S1-A2.1	O	1	Improved Student Learning Outcomes	Improved student learning outcomes, particularly in literacy and numeracy, at all levels with increased numbers of students, including those with special needs, attending school and experiencing quality educational opportunities	1	Expand and improve national curriculum standards and planning	2	ELA curriculum	1	Expand ELA national curriculum standards and benchmarks documents for grade 3 – 12 by end of 2022	Expanded ELA documents are to in place for grades 3–12 and on file in NDOE and distributed to schools. Findings to be reviewed annually and recorded centrally in EMIS.		Verification demonstrates that expanded ELA documents are in place for grades 3–12 and on file in NDOE and distributed to schools. Findings reviewed annually and recorded centrally in EMIS.	
G1-S1-A2.2	O	1	Improved Student Learning Outcomes	Improved student learning outcomes, particularly in literacy and numeracy, at all levels with increased numbers of students, including those with special needs, attending school and experiencing quality educational opportunities	1	Expand and improve national curriculum standards and planning	2	ELA curriculum	2	Develop and deliver training on updated ELA curriculum standards	VLA curriculum standards to be updated annually, with findings recorded in EMIS.		Verification demonstrates that VLA curriculum standards are updated annually, with findings recorded in EMIS.	
G1-S1-A2.3	O	1	Improved Student Learning Outcomes	Improved student learning outcomes, particularly in literacy and numeracy, at all levels with increased numbers of students, including those with special needs, attending school and experiencing quality educational opportunities	1	Expand and improve national curriculum standards and planning	2	ELA curriculum	3	Monitor implementation of ELA curriculum standards	Implementation of ELA curriculum standards to be effectively monitored, with findings recorded annually in EMIS.		Verification demonstrates that implementation of ELA curriculum standards is effectively monitored, with findings recorded annually in EMIS.	
G1-S2-A1.1	O	1	Improved Student Learning Outcomes	Improved student learning outcomes, particularly in literacy and numeracy, at all levels with increased numbers of students, including those with special needs, attending school and experiencing quality educational opportunities	2	Develop and distribute new learning materials and packages	1	Learning packages and curriculum expansion	1	Develop 6 low cost packages of children's booklets, short stories, YouTube clips and other digital learning packages to support language learning (vernacular and English) are identified for grades K–4 in all elementary schools by the end of 2022/23	Learning packages (including digital links) for the teaching of literacy are to be posted on the NDOE website after evaluation and approval, and that these are to be effectively used, as demonstrated by inspection findings, by 2023. Findings to be recorded annually in EMIS.		Verification demonstrates that learning packages (including digital links) for the teaching of literacy are posted on the NDOE website after evaluation and approval, and that these are effectively used, as demonstrated by inspection findings, with findings recorded annually in EMIS.	

The Framework lists all Goals and Outcomes, further disaggregated to Strategies, Activity Areas and individual Activities. Each Activity then has a defined target, and indicator. Links to SDG4 Targets and Indicators are also included for those activities that map onto them.

Each activity that has implications at the federal leve hasl an FSM-level indicator is included. Where activities have implications at a state-level, state-level indicators are included.

As this is fully integrated into a single resource, Action Planning is fully incorporated into the Costed activities within the financial model, ensuring accountability, as well as minimizing the need for duplication of reporting:

Figure 7: Exemplar Action Plan



												Division by Sector				Total by Sector					Gap by sector				
Region	Type	Year	Covered[%]	Item/description	Units	Unit Cost	Tot Cost	Gap	Responsible Body	Responsible Individual	Gen%	ECE%	Ele%	Sec%	TVET%	Gen	ECE	Ele	Sec	TVET	Gen	ECE	Ele	Sec	TVET
FSM	Labour+Travel	2021	20%	Procurement / Contracting / Project Management	50	1,000	50,000	40,000				20%	40%	40%		-	10,000	20,000	20,000	-	-	8,000	16,000	16,000	-
FSM	Consultancy	2021	0%	Consultancy Support (Total Budget Estimate)	50	1,000	50,000	50,000				20%	40%	40%		-	10,000	20,000	20,000	-	-	10,000	20,000	20,000	-
FSM	Infrastructure	2021	80%	Office Space / Meeting Rooms	50	350	17,500	3,500				20%	40%	40%		-	3,500	7,000	7,000	-	-	700	1,400	1,400	-
FSM	Labour+Travel	2022	20%	Procurement / Contracting / Project Management	50	1,000	50,000	40,000				20%	40%	40%		-	10,000	20,000	20,000	-	-	8,000	16,000	16,000	-
FSM	Consultancy	2022	0%	Consultancy Support (Total Budget Estimate)	50	1,000	50,000	50,000				20%	40%	40%		-	10,000	20,000	20,000	-	-	10,000	20,000	20,000	-
FSM	Infrastructure	2022	80%	Office Space / Meeting Rooms	50	350	17,500	3,500				20%	40%	40%		-	3,500	7,000	7,000	-	-	700	1,400	1,400	-

The Action plan is found under each activity in the annexed worksheet, where the activity is further broken down into individual cost-items. Each item is then allocated a 'Responsible Body' and a 'Responsible Individual' as well as region, and year of completion to enable tracking of progress and establish links of accountability.

Furthermore, barriers to effective Monitoring and Evaluation have been proactively identified and mitigated, for example, issues with transport impacting on data collection:

> *'Improve transportation to conduct monitoring of ECE sector and data gathering to/from outer islands'*
>
> (Goal 5, Strategy 17)

The ESSDP also maintains a core focus on the consistent use of M&E findings to inform programming – as evidenced throughout this ESSDP, all key activities are underpinned by explicit Monitoring and Evaluation strategies, with data collection, and analysis, planned for from the outset.

As noted above, indicators have been identified clearly for all activities – where applicable these have also been mapped against SDG4 indicators, to ensure consistency of reporting.

6.2. Annual Review

Each August, the Secretary of Education will convene and lead an Annual Review of the ESSDP to coincide with the Micronesian Teachers Education Conference (MTEC). This will involve representation from all national and state stakeholders along with invited development partners who have a stake in the education sector. The review will include

1/ Data from each state showing progress against the overall performance assessment framework and progress in achieving the national targets in the ESSDP. The reports will include analysis of major successes and less successful strategies undertaken that will provide issues to be addressed for the coming year, and recommendations on actions to be taken.
2/ A strategy to revise the plan especially where targets are not being met;

The annual review should also require a detailed financial report (prepared by December), showing a comparison of budgeted and actual expenditure for the sector in the previous year.

If the review in (2) (above) suggests revisions to the forward plan, these revisions should be included in the expenditure priorities projected (by December for the following year together with the remaining years of the sector plan.

6.3. Mid-term Review and Evaluation

The Annual Review in 2022 should be in the form of a Mid Term Review of the ESSDP from 2020 to 2022. Development Partners and other stakeholders will be invited to sponsor an evaluation of the implementation of the sector plan. Specific Terms of Reference will be designed to identify the scope of the evaluation process, focusing on measures of outcomes, effectiveness, efficiency, equity, intermediate impact, lessons learned and sustainability.

Chapter 7: Risk Manage-ment and Sustainability

7.1. Vulnerability, Disaster Risk Reduction, and Climate Change

This component of the ESSDP provides an overarching analysis of areas of 'vulnerability' of the education system in FSM to political, economic, social, and environmental risks, as well as detailing mitigation strategies to address these as appropriate.

This has been informed by the collaborative, and iterative, process underpinning the development of the initial Education Sector Analysis, and the subsequent drafting of the ESSDP.

Given the wider scope of the ESSDP, it is not intended that this serve as an exhaustive exploration of all risk factors, but to focus on, and clearly identify, the most significant strategic risks, particularly those that have the potential to impact substantively on the effective implementation of the ESSDP.

As identified within the Education Sector Analysis, there are a range of risks that have the potential to impact substantively on the effective and efficient implementation of the ESSDP.

7.1.1. Geopolitical and Economic Factors

Risks include geopolitical factors – as noted within the Education Sector Analysis:

> *'The island country is heavily dependent on external assistance, with budget grant income estimated to account for 43 percent of its gross domestic product (GDP)'*
>
> (Education Sector Analysis, p3)

This is compounded by the geographical remoteness of FSM:

> *'The most recent World Bank Public Expenditure Review (2016) showed that FSM with a population of around 103,000 is one of the smallest countries and one of the most remote in the world with a ranking in the top decile of global remoteness indicators'*
>
> (Education Sector Analysis, p7)

This renders FSM particularly vulnerable to geopolitical factors, particularly in relation to external assistance.

There is significant reliance upon United States of America sourced funding arising from the Compact of Free Association (COFA) – in 2013 58% of the national budget was funded by COFA (ibid.), and the COFA Trust Fund intended to reduce reliance on COFA has underperformed

significantly, and returned a loss (ibid.) – in this context, there is currently a projected fiscal gap of $41.3 million in FY2024 (ibid.).

The economic provision delivered through COFA is to expire in 2023, with future support the subject of negotiations between the United States of America and FSM.

Were Compact not renewed, this would have significant ramifications for FSM, and would impact on all areas of public expenditure, including education – and would have the potential to significantly impact on the implementation of the ESSDP,[22] and would necessitate proactive steps to mitigate widespread challenges to the education sector.

It is therefore unlikely that this outcome will arise, as it does not serve the interests of FSM, or the United States of America (particularly given increasing tensions in the Pacific region, and competing interests on the part of a range of nation states). Nonetheless, it is important that this, low probability, but high impact, risk is considered.

The ESSDP addresses this explicitly, and has set out a clear strategy to manage this risk as negotiations continue.This is reflected by the inclusion of the following Target:

'Austerity contingency plan in place for end of CoFA by 2022.'

(Goal 3, Strategy 11)

This will ensure that clear systems, protocols, and actions plans are in place should the Compact of Free Association not be renewed.

7.1.2. Environmental Vulnerability Factors

Geographical/ environmental vulnerability factors, also pose a distinct, and significant risk to FSM, and have the potential to impact on the implementation of the ESSDP:

'FSM is particularly vulnerable to accelerated sea-level rise and is prone to natural disasters.'

(Education Sector Analysis, p3)

Specifically:

- Epidemic/pandemic;
- Typhoons ('Cyclones');
- The El Nino effect; and
- Climate Change.

(Education Sector Analysis, p7)

As noted within the Education Sector Analysis, such factors can impact significantly on education programming:

'Two major typhoons during 2015 along with the on-going annual effects of the El Nino factor have impacted on FSM, especially in the outer islands of Chuuk and Yap. Typhoon Maysak caused extensive destruction in Chuuk, where 90% of banana, breadfruit, and taro crops were destroyed, and in Yap (Ulithi zone) where all classroom buildings, houses and farms were destroyed. All senior students needed to be transferred to

[22] For detailed analysis, see: https://icaad.ngo/wp-content/uploads/2019/10/COFA-Policy-Brief-2019.pdf

Yap high school on the main island to complete secondary school because of damage to their home school.'

(ibid.)

The Education Sector Analysis also highlights the significant risk faced to FSM, a Small Island Nation, if sea levels rise (ibid.) as a result of Climate Change, noting anticipated'fiscal costs brought about by climate change events such as sea level rise and its exposure to natural disasters such as cyclones, king tides, and droughts' (Education Sector Analysis, p8).There also additional, secondary impacts, including landslides (Australian Aid, 2018) – 'fires, water shortages, and food shortages have also occurred during severe dry events' (ibid.).

Other, related, factors also pose distinct challenges -natural disasters, global economic crises and other macroeconomic instabilities significantly reducing the funding available for the programs detailed within the ESSDP.

It is therefore essential that proactive measures be taken to mitigate these risks:

Building on existing initiatives in FSM, such as the Climate Adaptation, Disaster Risk Reduction, and Education (CADRE) Program (Australian Aid, 2018) the ESSDP includes clear, concrete, steps to mitigate the vulnerabilities identified above:

'Ensure effective Disaster Risk Reduction and Education (DRR) Policies are in place, and reviewed regularly, to foster resiliance in relation to geopolitical, and natural, disasters, including climate related risks, pandemic related risks, and economic factors.'

(Goal 7, Strategy 7)

By planning to ensure that effective Disaster Risk Reduction and Education (DRR) Policies are in place, FSM will be better placed to mitigate the risk factors identified.

7.1.3. Human Capacity

As noted within the Education Sector Analysis:

'It is apparent that introducing reforms in teaching and learning must be accompanied by capacity development at all levels of the education system'

(Education Sector Analysis, p35)

Many of the approaches adopted within FSM, such as School-based Management, have highlighted the need for 'increased management capacity' (Education Sector Analysis, p38), which will also be essential to ensure that School Improvement Planning is effective, as well as wider 'capacity-building for all stakeholders in the development of SIPS' (ibid.).

Failure to ensure ongoing capacity building could undermine the effectiveness of the ESSDP, and impact negatively on its implementation.

The ESSDP therefore includes a substantive focus on human capacity building initiatives:

'Increase capacity of NDOE to utilize evidence-based planning, policy and research in FSM'

(Goal 3, Strategy 9).

This focus on capacity building within NDOE is key to ensuring the success of the ESSDP, and is underpinned by a range of focused training activities (at all levels of the education system), as well as the establishment of mentoring programmes:

> *'Establish Mentoring programmes to strengthen Teacher and Ministry Official Capacity to support the delivery of effective learning and teaching in schools.'*
>
> (Goal 1, Strategy 4)

This proactive approach to capacity building, informed by the findings of the Education Sector Analysis, and shaped by the Goals and Strategies of the ESSDP, are key mitigation strategies to address ongoing risks relating to Human Capacity.

To further address vulnerabilities that have the potential to impact on the implementation of the ESSDP, a risk management matrix is attached as Annex 2.

The NDOE will review the risk management matrix on a monthly basis to monitor progress, review target dates, allocate responsibilities, and establish warning indicators that provide alerts as to whether implementation is on track. These reviews will also identify new and/or emerging risks not currently mapped.

7.1.4. Risk Matrices

7.1.4.1. Economic Risks

#	Risks/Challenges	Implications	Remedial Measure / Strategy	Risk Level
1	(Policy) Failure to adequately continue or replace the funding arrangements from the Compact of Free Association (COFA) agreement with the United States (USA) occurring in 2023	Inability to fund and therefore deliver the planned education services and ESSDP activities; supplementary external financing sources will be required	NDOE and state DOEs modify plans and delay new initiatives if funds become unavailable Close links maintained between the NDOE and 4 SDOEs overseeing the ESSDP, and the national macroeconomic strategy; a coordinated approach to eliminate duplication of activities will be necessary	High
2	(Operational) Unexpected shocks to the FSM economy, failure to attract adequate development partner funding, unforeseen political changes that negatively impact education funding; or other threats to the education budget.	As for 1 above: inability to fund and therefore deliver the planned education services and ESSDP activities; supplementary external financing sources will be required	Strategic overview of the ESSDP is maintained by NDOE and activities are adjusted and re- prioritized to ensure maximum effectiveness and efficiency in changed financial conditions. Systems in place to facilitate potential development partner support	Moderate
3	(Operational) Incentives and appropriate advocacy for personnel at all levels to be engaged in ESSDP activity are not provided by NDOE or SDOEs	Education sector personnel including teachers may perceive participation in the implementation of ESSDP activities to be additional to normal workload.	Ensure that program initiatives are justified as being an integral part of regular activities and designed to improve learning outcomes rather than as an additional task.	Moderate

7.1.4.2. Environmental Risks

#	Risks/Challenges	Implications	Remedial Measure / Strategy	Risk Level
4		Reduced access for children and young people to education programs		High

(Operational) Natural disasters, exacerbated by climate change, can lead to: • heavy destruction of educational buildings, equipment and materials and • restrict free travel between island states that rely on sea access only; • break-down of telecommunications access; • intermittent power supply.	Reduction in the quality of programs due to loss of equipment, materials and facilities	Improved on-going strategic planning for natural disasters and climate change resilience at all levels. Schedule all activities to ensure priority is given during seasons where safe travel is possible for training and monitoring activities; Reschedule training where delay has occurred.	
	Diversion of funding away from the ESSDP in order to fund reconstruction activities		
	Travel for monitoring, evaluation and specialist training restricted both for advisers and for participant benefits		
	Regular on-line interaction between the schools, NDOE and SDOE is limited; access to on-line resources is restricted	Make special provision to ensure remote and isolated communities are well-resourced with reliable IT access	Moderate
	Reduced effectiveness of IT communications and impact on training courses in some venues	Training venues selected on basis of power reliability, with back-up plans, teaching methodologies and equipment in place in locations with unreliable power	Moderate

7.1.4.3. Institutional Risks

#	Risks/Challenges	Implications	Remedial Measure / Strategy	Risk Level
5	(Technical) Poor understanding of ESSDP strategies and outcomes. Little ownership by stakeholders in NDOE and SDOEs	Programming and implementation of proposed initiatives will be restricted; slow or incomplete progress will be apparent	Planned consultation undertaken in selected state centres focused on ensuring collaborative ownership and understanding of program activities;	Moderate
6	(Operational) Change of government or senior policy office changes affect the NDOE and the relevance of specific aspects of ESSDP structures for implementation management and monitoring	Weakened implementation and monitoring of the ESSDP	ESSDP updated as needed to reflect institutional changes NDOE provides prompt guidance on adapting to the institutional changes	High

			FACSSO takes a central role in facilitating a national approach to solving issues in implementing the ESSDP	
7	(Technical) Staff members in all sub-sectors lack sufficient capacity and competence to undertake the required roles and tasks	Decreased self-confidence and low self-esteem resulting in poor staff commitment to the support of ESSDP at all levels; Progress in implementation will be delayed with likely set-back to attempts to improve learning outcomes	Consultants and TA providers to use asset-based approaches that honor the human and environmental resources of the FSM, by using these as the foundation of their work. Timely TA intervention to augment expertise and build capacity among sector coordinating and managing staff in all sub-sectors Staff recruiting is focused and well-targeted Priority given to piloting school-based in-service training for teachers and for training of principals to mentor teachers to raise effectiveness and promote collaboration between the school and school communities; Ensure the whole education sector has the necessary core capacity to lead and guide ESSDP implementation, especially in emergent areas such as inclusive education, information technology and TVET	**High**
8	(Technical) Curriculum changes resisted by staff	Negative attitude of staff and administrators towards curriculum changes	NDOE undertakes an advocacy role to ensure all stakeholders embrace the changes and accept a renewed capacity for new and enhanced roles	**Low**

9	(Operational) Inability of SDOEs to sustain the increased demands for planning teacher in- service and distribution of materials.	Teaching/learning materials not distributed as planned. Teachers unable to access in- service training on a regular and cyclic basis	NDOE must source funds to ensure on-going in-service training and managing materials distribution and monitoring and recording teachers' access to in- service.	**High**
10	(Operational) Collaboration between NDOE and SDOEs diminished if states use alternative organizational structures or curriculum; An uncoordinated curriculum and structures will make overall national coordination and oversight complex	Role of NDOE is diminished, and opportunities for useful collaboration, mutual support, and leveraging economies of scale will be lost. Building a unified, integrated national system while retaining the distinctive cultures and autonomy of the states will be more difficult.	FACSSO assumes an expanded role that links NDOE and the 4 SDOEs in an effective working relationship where substantive collaboration can lead to effective information sharing and development of common solutions.	**High**

Annexes

The following is a list of annexes that form and integral part of this ESSDP and should be considered in parallel to this document:

- Annex 1: FSM Education Sector Analysis
- Annex 2: Monitoring and Evaluation Framework and Costing Model
- Annex 3: ECE Programme Outline
- Annex 4: COVID-19 Response

COVID-19 Response

Since the completion of the first submission of this ESSDP, the world has been severely affected by the pandemic of the Novel Coronavirus causing the COVID-19 disease.

The pandemic has affected many governments and industries, even in countries that have seen no or few cases of the disease. This has included the education sector in the Federated States of Micronesia.

Quarantine, reduced availability of transport, and social distancing measures have had an impact on how education is both delivered and 'consumed' in FSM and pose a potential threat for the educational outcomes and implementation of programmes and education interventions both regular and specific to this ESSDP.

As such the government has begun working on a COVID-19 overall response strategy, and the NDOE and SDOEs are looking to develop their own response and approach to help ensure successful delivery of education programming and minimize the disruption and negative impact of COVID-19 on educational outcomes and the operation of the education sector in FSM overall.

Though details of the policy and approach are yet to be finalized, this appendix provides a brief overview of the guiding principles and key points of the approach to be taken in response to COVID-19.

Key Aspects of FSM COVID-19 Education Sector Response

Monitoring and Promoting Equity

The impact of disruptions to the education system is not symmetrical. Instead, it is likely to affect those, already vulnerable for a variety of other reasons more than others. As such the importance of equity, its monitoring and promotion must be at the core of any COVID-19 response. This means that vulnerable groups, on the basis of gender, remoteness, and/or socio-economic status will receive priority in monitoring and implementation of preventative and protective measures.

Awareness-Raising and Sensitization Campaigns

The NDOE will also continue to create awareness-raising and sensitization campaigns regarding COVID-19, how it spreads, how it can be prevented in a school setting, and what measures schools and parents can take to minimize exposure and risk of transmission. These campaigns will help ensure that the risk of transmission is lowered and that the population and the schools have sufficient and verified information about the measures and steps to take in response to any potential outbreak.

Contingency Planning

Related to that, schools will be encouraged to undertake contingency and succession planning to deal with potential disruptions to teaching as a result of the pandemic. The NDOE/SDOEs will explore the possibilities of staff re-allocation and reassignment to address potential shortages.

Distance Learning and Education for All

Additional resources will be allocated by the NDOE and SDOEs to the development and implementation of distance learning programmes and tools to ensure that children retain access to learning even during quarantine.

Expansion of DRR Policy

Finally, in the aftermath of the first wave of COVID-19, the need for a robust and sustainable resilience and recovery planning in response to not only natural disasters,

but also pandemics, has emerged as a key gap in existing policy and planning. As such the proposed DRR policy will be further reviewed and expanded by the FSM NDOE and SDOEs to include general and contingency protocols for the education sector in response to future pandemics.

September 2020