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LOCALISING INDICATORS FOR THE SUSTAINABLE DEVELOPMENT GOALS:

A CASE STUDY IN SAMOA ON SDG INDICATOR 4.3.1
(PARTICIPATION RATE OF YOUTH AND ADULTS
IN FORMAL AND NON-FORMAL EDUCATION)

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Abstract

In July 2017, the global indicator framework comprising 17 Sustainable Development Goals (SDG), 169 targets and 231 global indicators, was adopted by the UN General Assembly. This framework aims to assist countries in monitoring their progress towards the goals of the Agenda 2030, allowing for global comparisons and drawing analysis of thematic issues that are pertinent to the development discourse.

Despite SDG being widely used, Least Developed Countries (LDCs) and Small Island Developing Countries (SIDS) in particular, have been struggling to fulfil the data needed for reporting SDG progress.

Drawing on Samoa as a case study, this research seeks to outline how a country can localise SDG4 global indicator 4.3.1, to take into consideration the country challenges and limitations, as well as provide reliable measurements of its education sector development.

This research's findings suggest that, localising SDG indicator 4.3.1 in Samoa by aligning it with government agencies reporting requirements, could allow data collection from existing sources and therefore help reducing the pressure on the country's limited institutional capacities. Localising SDG 4.3.1 could be done notably by adjusting the units of measurement of the indicator to comprise two age ranges: 15 – 24 years old and 25 years old and over; includes gender data in surveys and adjust government reporting to account for formal and non-formal education.

In localising SDG indicator 4.3.1, it would allow Samoa to meet its national and regional SDG reporting needs. For such localisation to be successful however, it would require coordination between ministries and organisations and commitment of financial and human resources.

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Acronyms

AES	Adult Education Survey
CEO	Chief Executive Officer
ECE	Early Childhood Education
ESP	Education Sector Plan
GDP	Gross Domestic Production
GNI	Gross National Income
HDI	Human Development Index
HLPF	High Level Political Forum
IA	Implementing Agency
IAEG	Inter-Agency and Expert Group
ISCED	International Standard Classification of Education
km²	Square kilometre
LDCs	Least Developed Countries
LFS	Labour Force Survey
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
MESC	Ministry of Education, Sports and Culture
MICs	Middle Income Countries
NFE	Non-Formal Education
NFL	Non-Formal Learning
NUS	National University of Samoa
OECD	Organisation for Economic Cooperation and Development
PSET	Post School Education and Training
QA	Quality Assurance
SAT\$	Samoa Tālā
SBS	Samoa Bureau of Statistics
SDG	Sustainable Development Goal
SIDS	Small Island Developing States
SQA	Samoa Qualifications Authority
TVET	Technical and Vocational Education and Training
UIS	UNESCO Institute for Statistics
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNSTATS	United Nations Statistics Division
US\$	United States Dollars
VNR	Voluntary National Review

Chapter 1: Introduction

1.1 Brief Introduction to Samoa

The Independent State of Samoa is a Small Island Developing States (SIDS) located in the South Pacific region almost halfway between Hawaii and New Zealand. It has a total land area of 2,820 km² and its two main islands are Upolu and Savai'i (Samoa Bureau of Statistics, 2018). Since its independence in 1962, Samoa's development pathway has slowly advanced, having graduated from Least Developed Country status in 2014 and is now considered a middle-income country (The Secretariat of the Committee for Development Policy, 2015).

Samoa's economy has moved from being dominated by the primary sector in the 1980s to become mainly a service-based economy, with tourism and remittances accounting for over 50 percent of Gross Domestic Production (GDP). Samoa's trade balance is characterized by a small export base and high reliance on imports, resulting in a huge trade deficit. This is constrained further by a narrow resource base and insufficient skilled labour. To address these challenges, Samoa has developed medium term plans since the early 1990s to articulate its development aspirations. The latest Strategy for Development of Samoa 2016-2020 main objectives, is to accelerate sustainable development, and broadening opportunities for all to ensure an improved quality of life for all its citizens (Ministry of Finance, 2016).

In 2018, Samoa was ranked 111, out of 189 countries and territories, in the high human development group on the Human Development Index (HDI). Its per capita GDP was SAT\$ 13,535 (USD\$5,885) based on purchasing power parity. Samoa's HDI ranking trends, as highlighted in Figure 1 has increased between 1990 and 2018, clearly shows life expectancy at birth increasing by 6.9 years, mean years of schooling increased by 3.0 years, expected years of schooling increased by 0.9 years and Gross National Income increasing by 23.4 percent (United Nations Development Programme, 2019).

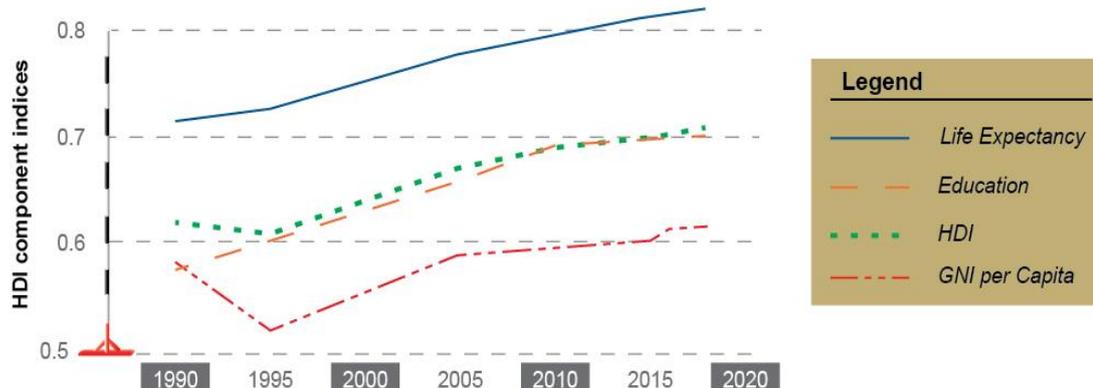
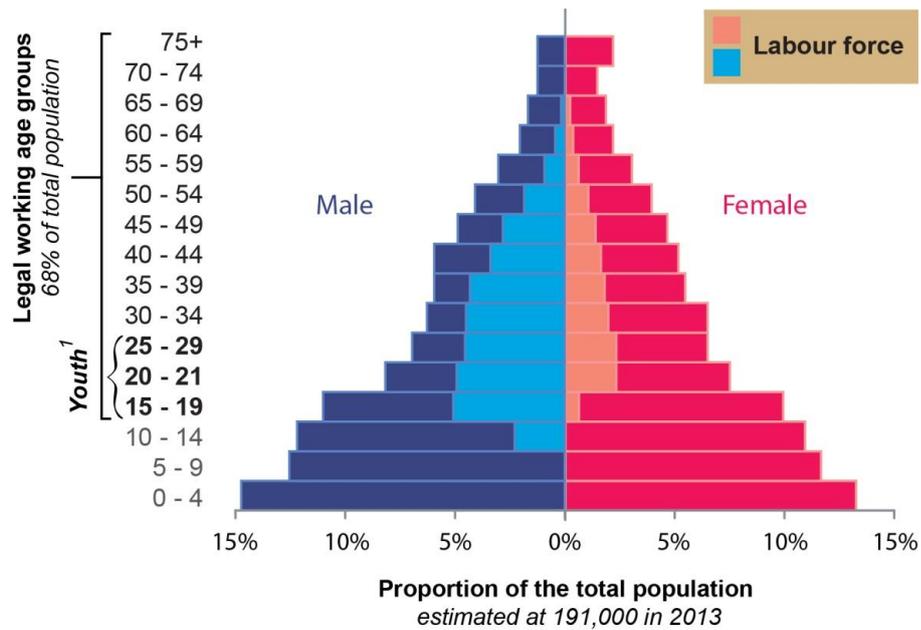


Figure 1: Trends in Samoa's HDI component indices 1990-2018

Source: Adapted from United Nations Development Programme. (2019)

The median age in Samoa is 20.5 years, making it a relatively young population. Out of the total population, approximately 77 percent of its 195,979 residents are located in Upolu, of which 25 percent are based in its capital Apia, the country hub for business and higher education opportunities (Samoa Bureau of Statistics, 2018). The working age group (between 15 and 65 years of age) accounts for 68 percent of the population as outlined in Figure 2. The formal segment is estimated to approximately 40 percent of the total labour force, and the non-formal segment with the vast majority of workers oriented toward agriculture and fishing, account for the remaining 60 percent of the total labour force. The majority of the formal labour force obtained at least secondary level education, and is mostly based in North West Upolu and Apia Urban Area (Ministry of Commerce Industry and Labour, 2013).



¹ As defined by the Samoan Labour Force Survey

Figure 2: Labour Force Participation 2013

Source: Adapted from International Labour Organisation, 2014

Research have shown, that the quality of training and education has been central to the ability of the workforce to learn unfamiliar functions, therefore enable economic diversification that is essential to a country's development (Asian Development Bank, 2016).

1.2 My Personal Interest in the Education Sector in Samoa

I was employed by the The United Nations Educational, Scientific and Cultural Organisation (UNESCO) Institute of Statistics (UIS) between 2016 and 2018, to assist Pacific member countries, to provide the data needed to calculate indicators related to the Sustainable Development Goal (SDG) 4 on education. As part of my role, I was in charge of providing training and ensuring that countries counterparts had all the necessary information to complete the education surveys used to gather accurate data for the calculation of SDG 4 indicators. During my interactions with Pacific countries and reflecting on their enquiries, I grew the sentiment that there was a discrepancy, not to say a misunderstanding, between the data that was requested and their relevance to what was happening in the education sector in SIDS. I

started to wonder whether all the data that was collected ensured that children in the Pacific were getting a quality education, or whether any substantial progress in terms of access to education or quality of the education provided were truly made. It then made me wondered by who standard and expected outcome were we measuring Pacific Countries' development goals.

1.3 Agenda 2030 and the Global Indicator Framework

The universal 2030 Agenda for Sustainable Development was adopted by the United Nations (UN) General Assembly in September of 2015 (United Nations General Assembly, 2020). It is framed with 17 Sustainable Development Goals and 169 associated targets (Figure 3).



Figure 3: Description of the Sustainable development Goals Framework - SDG4

Source: Adapted from Global Spedition CSR Programme, 2020

A global indicator framework for SDGs was developed by the Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs). It was endorsed in March 2017 at the 48th session of the UN Statistical Commission, and later adopted by the UN General Assembly in July of the same year (United Nations Statistics Division, 2020a). The Statistical Commission periodically provides comprehensive reviews and annually refine the indicator framework. “*The global indicator framework is expected to complement the regional and national indicators developed by countries*” (United Nations Statistics Division, 2020a, p.1). As of March 2020, the total number of indicators listed in the global indicator framework was 247. However, there are 231 unique indicators and 12 indicators repeat under two or three different targets (United Nations Statistics Division, 2020b).

To facilitate the implementation of the global indicator framework, all global indicators have been classified by the IAEG-SDGs, into three tiers based on their level of methodological development and the availability of data at the global level. Table 1 outlines the definitions of the three tier levels of the SDG indicators.

Table 1: Definition of Tier Levels

Source: United Nations Statistics Division, 2020b

Tier Level	Definition
Tier 1	Indicator is conceptually clear, has an internationally established methodology and standards are available, and data are regularly produced by countries for at least 50 per cent of countries and of the population in every region where the indicator is relevant;
Tier 2	Indicator is conceptually clear, has an internationally established methodology and standards are available, but data are not regularly produced by countries;
Tier 3	No internationally established methodology or standards are yet available for the indicator, but methodology/standards are being (or will be) developed or tested. (As of the 51st session of the UN Statistical Commission, the global indicator framework does not contain any Tier III indicators).

According to the UN Statistics Division's latest tier classification, as of the 17 of April 2020, there are 115 Tier I indicators, 95 Tier II indicators and 2 indicators that have multiple tiers (different components of the indicator are classified into different tiers). There remain 19 indicators with tiering pending a data availability review (United Nations Statistics Division, 2020b).

Even with the graduation of indicators from Tiers III and II to have established global methodologies and available data, many countries are struggling to provide the data needed to report on the tier I and tier II indicators. Countries report to custodian agencies which are defined as UN bodies and in some cases, other international organizations, that are responsible for compiling, verifying and submitting country data along with regional and global aggregates, to the United Nations Statistics Division for progress monitoring (United Nations Statistics Division, 2020a).

One research group found that even before reporting is possible, there are real challenges with creating, distributing, and collaborating on data sets across different government ministries and offices (Center for Open Data Enterprise, 2019). Furthermore, the lack of collaboration between ministries and the technical challenges of sharing data between different IT systems for reporting, can make the process time-consuming.

1.4 Description of SDG Target 4.3 and Global Indicator 4.3.1

UIS is mandated to collect and compile data from all United Nations member countries around the world, to calculate the indicators for SDG 4 – “*Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*”. SDG for quality education has ten targets and twelve global indicators as outlined in Table 2.

Table 2: Description of SDG 4 – Targets and Indicators

Source: Adapted from the United Nations Statistics Division, 2020b

Target	Indicator	Custodian Agency	Updated Tier Classification
4.1 Free Primary and Secondary Education	4.1.1 Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex.	UNESCO-UIS	Tier I
	4.1.2 Completion rate (primary education, lower secondary education, upper secondary education)	<i>pending data availability review</i>	
4.2 Equal Access to Quality Pre-Primary Education	4.2.1 Proportion of children aged 24-59 months who are developmentally on track in health, learning and psychosocial well-being, by sex	United Nations Children's Fund	Tier II
	4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex	UNESCO-UIS	Tier I
4.3 Equal Access to Affordable Technical, Vocational and Higher Education	4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex	UNESCO-UIS	Tier II
4.4 Increase the Number of People with Relevant Skills for Financial Success	4.4.1 Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill	UNESCO-UIS	Tier II
4.5 Eliminate All Discrimination in Education	4.5.1 Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated	UNESCO-UIS	Tier I/II depending on indice
4.6 Universal Literacy and Numeracy	4.6.1 Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex	UNESCO-UIS	Tier II

Table 2: Description of SDG 4 – Targets and Indicators (Continued)

Target	Indicator	Custodian Agency	Updated Tier Classification
4.7 Education for Sustainable Development and Global Citizenship	4.7.1 Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	UNESCO-UIS	Tier II
4.a Build and Upgrade Inclusive and Safe School	4.a.1 Proportion of schools with access to (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions)	UNESCO-UIS	Tier II
4.b Expand Higher Education Scholarships for Developing Countries	4.b.1 Volume of official development assistance flows for scholarships by sector and type of study	OECD	Tier I
4.c Increase the Supply of Qualified Teachers in Developing Countries	4.c.1 Proportion of teachers with the minimum required qualifications, by education level	UNESCO-UIS	Tier II

This research focus in on Target 4.3: “By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university”, more specifically on its global SDG indicator 4.3.1.

Target 4.3 aims to reduce barriers to skills development and Technical and Vocational Education and Training (TVET), starting from secondary level to tertiary education, as well as provide lifelong learning opportunities for youth and adults (The SDG Education 2030 Steering Committee, 2020).

The global SDG indicator 4.3.1 which measures progress on target 4.3 is defined as: “*Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex*”. UIS develops the global methodology and is mandated to provide assistance to countries in building capacity at the national level, to collect data for SDG indicator 4.3.1.

Once data are compiled and SDG 4 indicators are calculated, UIS publishes its findings on its global database, to allow comparisons between countries, regions or with global averages. Samoa as a signatory to the Agenda 2030, agreed to report against the 17 goals, including education SDG indicator 4.3.1. Samoa further solidified its commitment to the SDGs at the regional level, by endorsing the Pacific Roadmap for Sustainable Development, to guide regional responses for the achievement of the 2030 Agenda (United Nations Economic and Social Commission for Asia and the Pacific, 2019).

The only two cross-country instruments that are fully aligned with the methodology and concepts of global SDG indicator 4.3.1, are the European Union Adult Education Survey, and the Organisation for Economic Cooperation and Development (OECD) Survey of Adult Skills (Technical Cooperation Group, 2018). Since Samoa does not participate in either surveys, like other SIDS, no 4.3.1 indicator value has been recorded by UIS at the global level for Samoa, nor at the regional level where there is no proposed identification of data sources or adapted indicator.

Non-reporting of country data at the global or regional level, does not necessarily equate to data not being collected at the country level. Neither is it an indication that no calculation of localised indicators could not be done. Oosterhof (2018) noted since 2015, 24 Asia and Pacific countries have carried out their Voluntary National Reviews. Yet of these 24 countries that mentioned localization of national plans, concrete mechanisms and framework legislation, none of them were Least Developed Countries (LDCs) or SIDs. Hence, it is most likely that all the

Pacific LDCs and Middle-Income Countries (MICs) have not commenced to localize or develop a locally equivalent indicator for SDG indicator 4.3.1.

1.5 Research Aim and Question

The aim of this research is to explore how SDG 4.3.1 indicator, could be tailored to take into consideration SIDS challenges and limitations in terms of institutional and human capacities, using Samoa as a case study. Such an exploration will be based on the acknowledgement that any tailored SDG 4.3.1 indicator, would still need to provide a reliable measurement of the country development in the education sector, and allow for comparisons with other countries.

My main research question is:

What would localising of SDG 4.3.1 indicator look like in the Samoan context that fosters ownership of its education progress, and how would the localised indicator compare to its global counterpart?

Chapter 2: Literature Review

2.1 Introducing this Chapter

In order to answer the question of how SDG 4.3.1 indicator would need to be localised to address Samoa development needs, it is important to outline what defines global indicators compared to localised ones. A multitude of published manuals, reports and training materials have been developed by diverse agencies such as the World Bank, OECD, UN, governmental and non-governmental organisations, describing how to develop indicators and their associated outputs and outcomes (Ministry of Finance, 2015; Mosse & Sontheimer, 1996; United Nations Programme on HIV/AIDS, 2009). Given the prevailing use of globalised indicators handed down to Samoa and required by development agencies for reporting and monitoring, Samoa could be expected to have a straight forward approach of adopting these guidelines on how to develop indicators for all its sectors, including the education Sector (Ministry of Finance, 2015).

One of the main aim of this chapter is to examine the available literature on global indicators, to understand what they are used for and the discourse held by authors in the field in regard to some of their draw backs. It also endeavours to explore what is commonly coined as localised indicators and investigating the linkages between SDG and national indicators, to see if they are conducive of empowering Samoa's development in education.

2.2 History of the Sustainable Development Goals

The SDGs were adopted in 2015 as part of the 2030 Agenda for Sustainable Development. Unlike their precursors, the 2000 Millennium Development Goals (MDGs) which only applied to the LDCs and MICs (Georgeson & Maslin, 2018), The SDGs applied to all UN member countries regardless whether it be from the Group of Seven (G7) nations¹ or the least developed country in Africa.

Even though the SDGs were built on the foundations of the MDGs, a much broader scope was adopted, attempting to not only end extreme poverty and eradicate hunger but also to foster global prosperity in an economically and environmentally sustainable way.

"This expansion of scope arose from an attempt to move beyond the symptoms of poverty and hunger and to begin to address the causes: the pillars of social cohesion, economic stability and environmental sustainability, and many of the other interrelated issues that contribute directly or indirectly to poverty, hunger and inequality, such as peace, stability, human rights and good governance."
(MacFeely, 2018, p. 44).

2.3 Use of the Sustainable Development Goals

For the first time in human history, the SDGs marked an accord by all the nations of the world on a comprehensive vision, for the development of our civilization on planet earth (United Nations General Assembly, 2020). SDGs are coined by UN agencies to couch new and on-going projects as well as guide the evaluation of their results and impacts. Multiple custodian UN agencies, for example the Food and Agriculture Organisation of the United Nations, the United Nations Children's Fund, the World Health Organisation, and the International Labour

¹ The Group of Seven is an inter-governmental political forum of highly industrialized nations: Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

Organisation, collate the information sourced either directly from countries or from other external / international organisations, to calculate individual SDG's indicators.

Ranking of or comparison of multiple countries statistics, in the HDI or how countries are progressing to achieving SDGs for example, are usually done using *cross section analysis*. The measurement of progress is always in perspective of one country's progress compared to another. This type of analysis is prevalent in most UN agencies reports, analysis and symposiums. In the 2018 SDG Index and dashboard Report (Bertelsmann Stiftung and Sustainable Development Solutions Network, 2018), comparison between countries allowed for trends to be identified as well as overall progress or lack of it regarding achieving the SDGs. It also helped highlighting the gaps and needed efforts that require resource mobilization, to target certain development areas that need further support or concerted actions. Comparisons of similar sized countries in populations, economies and development status also allows for identification within countries of certain disparities and inequalities that need to be addressed.

Cross-sectional approach have also been used by social scientist to investigate the relationships between institutional, economic and social variables either by using comparisons between entities, such as schools, cities and countries, or through repeated observations over time in one geographic unit (Fortin-Rittberger, 2015).

Cross section analysis, however, does not necessary provide the opportunity to look at one country's own progress overtime or allow analysis of how its development has changed over time. To allow for a country to track its progress not only over time but especially focusing on how its activities have targeted changes and its effectiveness, *time series analyses* are better suited. The emphasis is on how the country defines what its development goals are and what methods and actions are needed to achieve them. It is not measured in comparison to other countries' indicators but on its own defined indicators of what progress is been viewed as. This allows for country specific indicators to be the focus of country monitoring and as long as these

indicators are maintained and collected over time, the progress made is analyzed according to the country priorities and needs.

Time-series research generally endeavours to map or analyze uniquely local histories and dynamics (e.g., path dependency), zoom in on a country or community's context, and include the connections within the unit of research as well as with other units of research. Time-series research of a specific country or community is mostly commissioned by a specific government body or local private party (Prinsen, 2019).

While some authors may contend that SDGs represent an opportunity for goal-led alignment of stakeholders and evidence-based decision-making, others have expressed some concerns about the risk of measuring development according to quantitatively defined parameters, and perceive SDGs as techno-managerial framework that does not allow for local variation (Ulbrich, Porto de Albuquerque, & Coafee, 2018).

2.4 Monitoring the Sustainable Development Goals

Since the SDGs establishment, countries have been expected to work towards and monitor progress to achieving the 17 Sustainable Development Goals by 2030. There has been a substantial increase of the number of goals, targets and indicators for the SDGs, compared to the MDGs 8 global goals with a framework of 18 measurable targets and 48 indicators. As a result of this greater need for information, countries have to gather and process a larger volume and various types of data. This is less of a challenge for developed countries that have effective statistical systems and data repositories, which allows the monitoring of progress and performance across many if not all fields of their sustainable development. However, data collection and monitoring in LDCs and MICs, while existing, have been facing a range of challenges both historically with respect to meeting the needs of monitoring the MDGs, and currently with respect to monitoring progress towards sustainable development (Webster & Ravnborg, 2016).

LDCs and MICs need more support and capacity building in data literacy and analysis, to effectively monitor SDGs indicators compare to the level of support that was needed for the monitoring of MDGs. Some authors have raised concerns about the risk to further worsen inequalities and discriminations if certain data were not accounted for accurately (Carr-Hill, 2014; Cobham, 2015; Samman & Rodriguez-Takeuchi, 2013). These data include the identification and counting of the disabled, migrant workers and refugees. Cobham (2015) for instance, noted that groups of people such as those without power, could go uncounted in the current SDGs and therefore risk to become further marginalized by their exclusion from statistics. *“Those without power are further marginalized by their exclusion from statistics, while elites and criminals resist the counting of their incomes and wealth. As a result, the pattern of counting can both reflect and exacerbate existing inequalities”* (Cobham, 2015, p.320). Fukuda-Parr and McNeill (2019) cautioned that the control of data is a powerful mechanism for shaping the strategies of a multitude of stakeholders, including national governments to development agencies and NGOs.

2.5 Definition of Global Indicator

Some authors (Prinsen & Purcell, 2013) have proposed development indicators as we know it today has its ancestry in the *‘Management by objectives’* approach (Drucker, 1954) and before that, Gross Domestic Product, which can be dated back as far as the 1930s. The modern use and discourse on indicators have grown exponentially in the last few decades, since the 1980s when Margaret Thatcher popularized it in her ideals of the *‘New Public Management’* era (Dooren, Bouckaert, & Halligan, 2010). However, the modern-day use of indicators really came into its sphere on the international scene after the first United Nations Development Programme (UNDP) Human Development Index (HDI) which was released in 1990. Since then, the use of indicators has subsequently been moved from the domestic public sector in Thatcher’s era, into the international development sector (Prinsen & Purcell, 2013).

One of the defining features of global indicators are that they are usually designed by international bodies to which local or national bodies report to. Examples of global indicators include those developed for the measurement of the HDI, the MDGs and the SDGs. The UN (United Nations Development Programme, 2009) describes indicators in development terms as “*signposts of change along the path to development*” (p. 5) also pointing out that “*indicators can be used at any point along the result chain of activities, outputs, outcomes and impacts*” (p. 6), as long as they are relevant to the results being measured.

Several other definitions of what an indicator is also exists, however the consensus on such definitions does not vary greatly between authors (Prinsen, 2015). The definition used for this research is the one provided by Merry (2011) who defines indicators as “*statistical measures that are used to consolidate complex data into a simple number or rank that is meaningful to policy makers and the public*” (p. 86).

According to this definition, indicators can be used to highlight the key points relevant to inform decision making on identified issues. Indicators can be quantitative, expressed in rates, percentages, ratios and numbers, or they can be qualitative. However, the majority of SDG global indicators are quantitative indicators. A good example of this disproportionate representation is exemplified in SDG4 indicators. Of the 12 global indicators for SDG4, only indicators 4.5.1 and 4.7.1 are qualitative indicators, the rest are quantitative (United Nations Educational Scientific and Cultural Organization, 2017b).

Information collected for the calculation of qualitative indicators is usually converted into numbers. Such indicators are described as quantified qualitative indicators. They may be more subjective and difficult to verify but can be very valuable in measuring and evaluating the impact and long-term effects of a project or initiative.

2.6 What are the main Criticisms of Indicators and their Use?

Patole (2018) highlighted the difficulties encountered by the least developed countries in their institutional capacity to localize SDGs and disaggregate data, hence call in question their ability to collect useful data on a national basis. Therefore questioning how such governments could effectively monitor SDG, while the \$254 billion estimated cost for SDG monitoring does not account for staffing, operation and maintenance, training and retaining personnel, analyzing, or disseminating the data at the government level (Jerven, 2014).

There is much debate in the literature on the adequate use of indicators and what makes a good indicator. Mars (2008) pointed out that indicators were “*essential components of human existence...they represent the foundations of trade, science and progress*” (p. 175), but also cautioned that not all indicators were useful and highlighted that performance indicators particularly tended to just measure what was easily countable. Kates *et al.* (2016) also highlighted that with the number of stakeholders at the global level having differing political interests, achieving consensus often resulting in taking the form of long “*laundry lists*” of indicators, where definitional differences were downplayed in favour of attaining a common set of indicators. In line with Kates *et al.* (2016) concerns, OECD also cautioned that in their current format, global indicators may invite stakeholders, especially policy makers, to draw simplistic analytical or policy conclusions (Organisation for Economic Cooperation and Development, 2008).

2.6.1 Global versus Localised Indicators

Several researchers have critiqued the design and utilisation of global indicators, noting that despite their prolific use in development, global indicators can in many instances completely omit what development goal they are supposed to measure and do not account for local variation (Scheyvens, 2007; Ulbrich et al., 2018). Critics of global indicators have indeed advocated for the necessity to take into account the local context, culturally and geographically

as well as communities needs, rather than prioritizing the outside perspective and reporting needs of international organizations (Bell & Morse, 2008; Merry, 2011). For Scheyvens (2007) global indicators may in some cases, not be culturally appropriate and could be described as ethnocentric. Merry (2011) further stated that global indicators also tended to ignore individual details and context in favour of more general and standardized knowledge.

Roundtree and Smith (2016) further highlighted the necessity to record the strengths, reflect the web of connections among individuals, families, communities, cultural and spiritual practices as well as individual stability and health in measuring well-being indicators of indigenous communities. Vanuatu's alternative indicators of well-being for Melanesia (Vanuatu National Statistics Office, 2012) is one example of how indicators can be locally defined purely for the benefit of local population, in line with their cultural values, the specific context of the country and its people perspectives and aspirations, not necessarily in conformity with the definitions of global indicators on well-being. With such definition being adopted by the Government of Vanuatu, the localized definition of well-being indicators only allows analysis of a country's progress overtime but no comparison with other countries' progress in this area. By localizing their global indicators, countries must invest into developing their own definitions and outlining of indicators for monitoring progress.

Despite their weaknesses, global indicators have become the norms. UN Agencies are beginning to require, that their development programmes and projects make linkages to the sustainable development goals and targets, hence aligning their initiatives and activities with current development discourse. Since the 2015 SDG adoption, many UN agencies are required to provide assistance and training to national and local governments, to encourage and imbed standards for the collection of data needed, to calculate the global indicators.

UN reports and initiatives championing the localization of SDGs, advocated for localized indicators to align with implementing ministries capacities, as well as allow for flexibility of

Implementing Agencies (IAs) to adapt indicators to specific context in order to meet their own reporting and monitoring needs (Moustafa, 2016).

2.6.2 Quantitative versus Qualitative Indicators

The majority of SDG global indicators are quantitative indicators. However, they are not necessarily always more accurate than qualitative ones. Scheyvens (2007) suggested that qualitative indicators were too often undervalued and overlooked because it is easier to collect quantitative indicators despite the risk of obtaining misleading measurements on the targeted outcome. Quantitative indicators 4.7.1 for example, measures evolution in (i) *global citizenship education* and (ii) *education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment*. Even though it is a quantitative indicator, its broader scope tends to leave room for multiple interpretations which make it more difficult to gauge a simple answer. As a result, there are currently no data available for this particular SDG indicator worldwide.

Good quality indicators, either quantitative or qualitative, global or localized, can provide valuable information to governments, the general public, businesses and scientists, on policy efficiency and diverse research topics. It is crucial however, that both their aim(s) and targeted audience are clearly identified to avoid any potential misinterpretations about data analysis (Brown, 2009).

2.7 Localising Sustainable Development Goals' Indicators

The concept of localizing global indicators to make them more nationally relevant, enhance countries ownership of their development and therefore render them more inclusive and relevant to today's countries issues, has been fostered in the approach used to established the SDGs indicators (United Nations Development Programme, UN-Habitat, & Global Taskforce,

2016). The consultative and participatory processes of engaging multiple stakeholders from across societies, NGOs, civil societies and governments, have departed the SDG development framework from the limited feed and rigid process used to define the MDGs' indicators. This is further promoted by the UN produced Roadmap to localizing SDGs, in its advocating for "*aligning local and regional plans including monitoring and assessment tools that align with the indicators established in the 2030 Agenda*" (United Nations Development Program, UN-Habitat, & Global Taskforce, 2016, p.28).

Lucci (2015) suggested that localizing SDGs' global indicators could refer to monitoring progress on the goals at the subnational level, hence monitoring inequalities within countries to assess where needs are concentrated. A more commonly used definition of 'localizing' global indicators relates to the role of local governments in implementing the SDGs, by adopting a sub-set of goals and targets for which they have specific delivery responsibilities. With such an approach, localizing indicators is more likely to result in prioritizing sub-national planning and resource allocation in specific sectors, which provides more flexibility to governments in aligning implementation of their projects, initiatives, and activities with SDG targets and goals.

Such approach has been advocated by UNDP to enhance SDGs' relevance at the national level. Toolboxes, manuals and guidelines have been developed to assist countries in empowering local actors in channeling global goals into local actions. The purpose of such documentation was to provide practical direction in assessing, planning, implementing and monitoring local policies, in accordance with the SDGs' strategies (United Nations Development Programme, UN-Habitat, & Global Taskforce, 2019).

Australia is one example of a country that has successfully managed to localize its SDG indicator 4.3.1 (Department of Foreign Affairs and Trade, 2020) and this example will be further discussed in section 4.3 of this research. Switzerland in its Voluntary National Review (VNR) emphasized that sustainable development should be a means of increasing ownership and policy coherence. Therefore they believe SDGs should be integrated as far as possible into

sectoral policies as well as normal planning and control processes (United Nations Department of Economic and Social Affairs, 2018). This is illustrated quite aptly in Switzerland's initiative to incorporate its SDG reporting of indicators into its Federal Statistics Office website to normalize and align processes (Federal Statistics Office, 2020).

2.8 Samoa Education Sector

The Education Sector in Samoa is responsible for providing good quality education services to almost 69,000 students, representing approximately 35% of Samoa's population. The majority of enrolled students in the formalized education are in secondary school level and below, with 70% of the total population enrolled in Early Childhood Education (ECE) and Primary level (Figure 4).

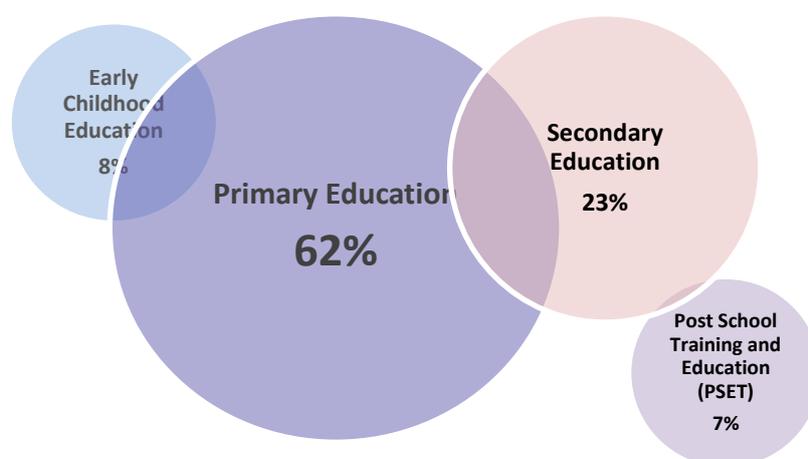


Figure 4: Education sub-sector and share of 2018 student population

Source: Adapted from Education Sector Coordinating Division, 2019, p. 2

The enrolment ratio of males and females are relatively even throughout the sub-sectors. However, slightly more females than males tend to stay enrolled through secondary education, and more clearly females eventually go on to Post School Education and Training (PSET) as outlined in Figure 5 (Education Sector Coordinating Division, 2019).

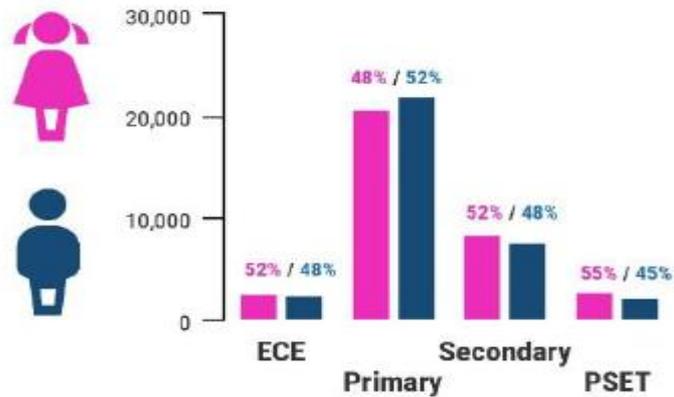


Figure 5: Gender distribution of student population over the sub-sectors

Source: Adapted from Education Sector Coordinating Division, 2019, p. 2

2.8.1 Education Planning Framework and National Indicators

The overarching planning framework for the education sector in Samoa is detailed in its five yearly *Education Sector Plan (ESP)*. This plan aims at improving educational achievement standards and increasing productive engagement, as well as reflecting the strategic direction of governmental, regional and international policies, to focus on the delivery of high-quality, accessible and relevant education for all Samoans.

The Samoa Government vision is to have an “*Improved Focus on Access for Education, Training and Learning Outcomes*” (Ministry of Finance, 2016). The ESP 2019-2024 (Education Sector Coordinating Division, 2019), also clearly sets out its vision to ensure “*All people of Samoa are educated and productively engaged*” (p. 13), with its mission “*To promote the achievement of high quality education and training to meet the national, economic, social and cultural goals of Samoa*” (p. 13). In doing so, it monitors and evaluates the progress at the national level and ensure alignment with the international commitments to SDGs (Education Sector Coordinating Division, 2019). The education sector plan has five key goals that the sector is expected to achieve within the stated five years. Achievement of these goals

“should lead to a robust, effective Education Sector for Samoa, and good progress towards the SDS and the SDGs” (p.43). The linkages from national to regional and global SDG Goal 4: Quality education is outlined in Table 3.

Table 3: Education Sector Planning Framework

Source: Education Sector Coordinating Division, 2019, p.24

Global		United Nations Agenda 2030 for SDG 4: Quality Education			
Regional	Pacific Regional Framework for Education 2018-30: Key Principles Quality and Relevance - Learning Pathways - Students Outcomes and Wellbeing -Teacher Professionalism				
National	Samoa Development Strategy 2016-2020: Key Outcome 7 Teaching and learning quality improved - Access to education and training -Education and training development aligned to national Human Resource Development priorities; Improved climate and disaster resilience				
	Education Sector Plan 2019-24: Vision All people in Samoa are educated and productively engaged				
	PSET Strategic Plan 2016-2020: Vision Relevant and quality assured PSET is inclusive for all learners in Samoa				
Sector	ESP Goals	Ministry of Education, Sports and Culture (MESC) Corporate Plan	Samoa Qualifications Authority (SQA) Corporate Plan	National University of Samoa (NUS) Strategic Plan	
	2019 - 2024	2018 - 2021	2017-2020	2018-2021	
	Goals				
	1. Enhance the quality education and training for all learners	1. Enhance quality of Education at all levels	1. To regulate and quality assure PSET	1. Uphold excellence in teaching and learning	
	2. Provide inclusive access to quality education and training opportunities	2. Enhance educational access and opportunities at all levels	2. To enhance relevance of PSET and access to PSET opportunities	2. Strengthen research relevant to national needs	
	3. Advance the relevance of education and training to meet national and labour market needs	3. Enhance relevance of education and training at all levels	3. To conduct research and formulate policy to provide sound PSET policy advice	3. Commitment to partnership and engagement	
	4. Improve the effectiveness of sector planning, monitoring and reporting	4. Strengthen community engagement and collaborative partnerships	4. To provide strategic leadership and strengthen networking amongst PSET sector	4. Creating universal design for a digital environment	

Table 2: Education Sector Planning Framework (Continued)

Global				
United Nations Agenda 2030 for SDG 4: Quality Education				
Sector	5. Develop sustainable management of all education sector resources	5. Establish sustainable and efficient management of all education resources to meet service delivery expectations	5. To achieve effectiveness, efficiency and sustainability of resources.	

2.8.2 Post School Education and Training Sub-Sector Analysis

The scope of PSET sub-sector as outlined in the ESP covers all forms of education and training activities outside the formal school system utilizing a structured mode of delivery. PSET covers higher education, technical vocational skills development, pre and in-service teacher education and training, theological colleges and providers of religious instruction, Non-Formal Education (NFE) and on the job training.

Year 13 students who obtain the Samoa School Leaving Certificate can go to the National University of Samoa (NUS). There is a preparatory year after year 13 of which students enter to formulate themselves for undergraduate studies at the university or in other institutions in Fiji, New Zealand and Australia. NUS also offers a Preliminary Certificate in TVET: a bridging programme that creates a pathway for learners who do not meet entry requirements for PSET. Year 12 and 13 school leavers have access to a wide range of TVET programmes and NFE activities that have met Samoa Qualification Authority’s (SQA) Quality Assurance (QA) standards. NFE offers an alternative to TVET and Higher Education. Table 4 outlines the different types/levels of enrolled programmes that SQA captures in its data collection. In 2018, “193 learners (50 % female) were enrolled in 116 Non-Formal Learning (NFL) activities” (Education Sector Coordinating Division, 2019, p.27). The decreasing number of enrolments in

the Non-formal learning activities was due to the cyclical nature of trainings and programmes reported by education providers. The data reflects these courses been offered only once every few years or that the providers did not submit data on the programmes every year.

Table 4: PSET Enrolments 2014-18

Source: Education Sector Coordinating Division, 2019, p.27

PSET Enrolments Year	2014	2015	2016	2017	2018
Non-Formal Learning		780	953	336	193
Certificates	3167	3119	2929	2626	2,247
Diplomas	556	617	519	430	443
Bachelor	1759	1749	1826	1810	1,920
Graduate diplomas and certificates	39	22	37	25	25
Postgraduate diplomas and certificates	146	118	101	105	112
Master degrees and PhDs					30
TOTAL	5667	6405	6365	5332	4970

2.8.3 Monitoring of Education Progress

Education data and statistics play a critical role in all aspects of policy and planning development, monitoring and evaluation, as well as decision making for the development of Samoa. These indicators are essential in planning and monitoring of the implementation of sector priorities, as highlighted in annual management plans and budget preparations (Ministry of Education Sports and Culture, 2018).

The Monitoring and Evaluation (M&E) framework for the ESP is purported to report on the sector and SDG progress. However, given the many modifications to the Key Performance Indicators of the previous ESP (2013-2018) due to changes or revision to indicators, this has made the current M&E Framework rather complex. There are strengths and weaknesses in the

way monitoring and evaluation has occurred, partly related to the information management challenges as well as ensuring relevant information is being captured. The Annual Review Reports is useful and essential tools which require IAs to coordinate their reporting (Haggland, Catherwood, & Aikman, 2018).

The implementation and monitoring of the ESP 2019-2024 is undertaken by three IAs: The Ministry of Education, Sports and Culture (MESC), NUS and SQA. Each IA is a public body, established and empowered by law with a mandate of functions, responsibilities, power and authority. Each IA is responsible for collection of different sub-sectors' data as outlined in Table 5.

Table 5: Data Collection Methods

Source: Author

Implementing Agency	Collection Method	Data collection period	Data dissemination Output
MESC	School administration Survey (mandatory completion by all Schools and ECE centers)	March-April Annually	Education statistical Digest (Annually)
SQA	SQA's administration collection form (All registered Education providers to complete)	June - October Annually	PSET Statistical Bulletin (Annually)
NUS	Enrolment Figures	Biannually as students enroll	NUS submits its enrolment and course info to SQA as an education provider

2.8.4 Sustainable Development Goals Reporting Mechanisms

SDG reporting refers to the act of publishing and disseminating data and statistics on the SDG indicators, these include reporting done by UN custodian agencies, governments and regional platforms, for key stakeholders such as, policy makers, businesses, donors, research institutions and the general public (Center for Open Data Enterprise, 2019). According to the

2030 Agenda for Sustainable Development, SDG reporting is not only to be led by national governments but they also must comply with the UN's Fundamental Principles of Official Statistics (United Nations Economic and Social Council, 2013).

There are two avenues of which countries can report their SDG data and progress. Either by dissemination via data platforms and the Voluntary National Review Report to the High-level Political Forum, or via custodian Agencies reporting to the UN Statistics Commission.

Countries generally adopt one of three following platform models (Center for Open Data Enterprise, 2019):

- i) Incorporating SDG reporting within an existing national website or platform. This is for example the case with Germany (Federal Statistics Office, 2020);
- ii) Developing an entirely new platform dedicated to providing data on the SDGs as Australia has done for its SDG reporting platform (Department of Foreign Affairs and Trade, 2020); or
- iii) Providing country data to a regionally maintained platform, as is the case with Samoa being part of the Pacific Data Hub (Pacific Community, 2020).

In September of 2017, Samoa as a member of the Pacific Island Forum Leaders adopted the Pacific Roadmap for Sustainable Development (United Nations Economic and Social Commission for Asia and the Pacific, 2017) hence committing to a regional approach in reporting its SDG data. The '*Pacific Data Hub*' is the regional platform for reporting the 132 Pacific selected Sustainable Development Indicators prioritised by Pacific Islands Leaders Forum in the Pacific Roadmap. Data is collated from sources of the 22 participating Pacific countries and territories as well as from development partners, including from national household collections, education management information systems, civil registry data, treasury papers, health information systems, and published reports (Pacific Community, 2020).

Samoa was one of the first countries and indeed, the first Pacific Island country to present its VNR at the 2016 High Level Political Forum (HLPF). Country officials highlighted the challenges faced by Samoa in its ability to develop and achieve its SDGs due to its limited resources, institutional capacity limitations which is exacerbated by its small size and isolation from other markets. Vulnerabilities to climate change and environmental hazards further compound these challenges (Government of Samoa, 2016).

Samoa is fully committed to the implementation of its development framework inclusive of the SDGs. This is evident with the integration and mainstreaming processes being carried out as a matter of priority at country level which is using existing systems, processes and institutions. Understanding the different ways that *'leave no one behind'* could be interpreted will make implementing the SDGs more effective in practice. Key lessons from its 2016 VNR (Ministry of Foreign Affairs and Trade, 2016) included the following:

- Completing the exercise helped improve the nation's ability to monitor progress;
- Mapping the goals and planning their implementation uncovered capability gaps, while also building capacity around data gathering and statistical analysis;
- To have a realistic chance of success, the goals need to be contextualised;
- Close collaboration is necessary for consistency of understanding and harmonization of efforts;
- Political will and strong leadership are essential factors; and
- For island nations, regional coordination is critical. In Samoa's case, developing national and regional plans strengthened ties between participant groups both within the country and beyond.

Samoa's next VNR is currently being compiled and will be submitted before the end of 2020.

2.9 Chapter Summary

Global SDG indicators have been widely adopted by development agencies at the global level, mainly to monitor and evaluate countries' progress or programme contribution toward the development goals.

In Samoa, the M&E frameworks both at the national and sector levels are purported to monitor and facilitate reporting on SDG progress, not only nationally but also at the individual sector level. However, many of the SDG global indicators have not been localised, and like many other LDCs and MICs, Samoa has limited institutional capacities and resources, which makes it challenging to ensure accurate information management and therefore monitoring. Global indicators have also been criticised for their possible lack of relevance to local context, and more generally for not always measuring what they have been intended to measure.

Despite being fully committed to the implementation of its development framework being inclusive of the SDGs, many of Samoa's indicators on education, especially SDG indicator 4.3.1 have not been reported at the global level.

Supporters of localisation of global indicators have argued, that this process would make such indicators more nationally relevant, better aligned with local processes and inserted into line ministries priorities. Therefore, they would enhance countries ownership of their development, hence rendering them more inclusive and relevant to the country's realities.

Chapter 3: Research Methods

3.1 Introducing this Chapter

This chapter outline the methods used to collect data and relevant information needed for this research. It acknowledges the key aspects of why qualitative research is essential in a research project for Development Studies. It then describes the process by which analysis of key documents and semi-structured interviews of select individuals were conducted.

For this research, two qualitative methods were used, document analysis and semi-structured interviews. Qualitative research allows researchers to explore people's attitudes, behaviours, concerns, interpretations, motivations, aspirations, value systems, culture, or lifestyle (Marshall & Rossman, 2006). The document analysis sought to clarify the linkage between the development goals at the global and national level as well as exploring the limitations on data collection and monitoring. The semi-structured interviews were used to corroborate the data gleaned from the document analysis as well as to provide more in depth responses of those who are in positions to influence the development and direction of education and to capture their own experiences and views on the research topic.

Both the document analysis and semi structured interviews were consciously chosen for this research, to enable comparisons of language being used and to further investigate whether the in-country people's perceptions of how the education was improving, were aligned with the SDGs.

3.2 Document Analysis

Labuschagne (2003) gave a fair definition of document analysis, it "*yields data—excerpts, quotations, or entire passages—that are then organised into major themes, categories, and case examples specifically through content analysis*" (p. 28). McLennan and Prinsen (2014) noted how significantly the digital age has changed the ways in which people and organisations

store, transmit and access written information in today's world. With the expanding world of information that the internet opens up, researchers are cautioned that such a wealth of information must also carry with it a sense of responsible and discerning use. For this research, the document analysis comprise a review of multiple documents sourced from Samoa government ministries, international Donors, Non-Government Organisations and UN agencies websites. These websites contain information stating relevant stakeholders' position, messages and aspirations on SDG indicators. From governments vision statements and guidelines on how to monitor their progress, to global aspirations of what direction a global movement is chartered for.

3.2.1 Choosing the Right Documents and Why

Since this research centers on the premise that SDGs and their respective targets and indicators are perceived to align with Samoa's education development goals, documents were selected for analysis based on their relevance in term of providing comparable information on the development aims reflected by national actions and priorities or by international aspirations. From the national perspective, the locally produced national strategies, sector plans and ministries corporate plans outline, what the Samoa government aspire to achieve for its education sector and how it plans to implement and monitor progress made on these goals. Global views and documentations were collected from archives and repositories of different UN Agencies, SDG websites powered by international NGOs, and donors expounding on SDGs and their indicators (Table 6).

Table 6: List of Document Used for Analysis

Source: Author

	National level - produced and adhered to by Samoa's government ministries	Global level – produced by International Donors, NGOs and UN Agencies produced
High level Goals	<ul style="list-style-type: none"> - Samoa's Development strategy (2016 - 2021) - Samoa Monitoring Evaluation Reporting Framework (Finance on how to develop indicators) - Samoa's Voluntary National Review Report - Samoa's statistics strategy 	<ul style="list-style-type: none"> - SDG UN official website on goals/targets/indicators explained - UNESCO Education monitoring report
Monitoring and data collection	<ul style="list-style-type: none"> - Samoa's Education Sector Plan (2013-2018) - MESC Corporate Plan (2013 -2017) - SQA Corporate Plan (2014 – 2018) - Annual statistical digest - MESC - Annual Digest – SQA 	<ul style="list-style-type: none"> - SDG localisation manual - UNDP Report on Localisation of SDGs in Samoa - the United Nations Statistics Division (UNSTATS) definition of who should be calculating the indicators and what data to use - SDG methodology for 4.3.1
Data collection instrument	<ul style="list-style-type: none"> - School survey – Administrative data all primary and secondary schools to fill and submit to MESC annually - SQA's PSET administrative survey (distributed to all post-secondary education providers) to be completed annually 	<ul style="list-style-type: none"> - Instruction manual for UIS survey Questionnaire for Students and Teachers QA - UIS Formal Education Questionnaire A & C for Students and Teachers (International Standard Classification of Education (ISCED) 0-4) and (ISCED 5-8) - Eurostat - The Adult Education Survey (AES) - OECD Survey of Adult Skills

3.2.2 How these Documents were Identified?

Key words such as SDGs, education indicators, SDG indicator 4.3.1 as well as localisation of SDGs were used in search engines. Documents held offline were requested from respective ministries, this was for example the case for the Samoa School Administration Survey form. Other documents such as the SDG localisation Report for Samoa and presentations done by SBS on mapping of SDG indicators, which were produced by UNDP and government ministry but not published online, have been appropriated on request to relevant project coordinators.

3.3 Semi Structured Interviews

Semi-structured interviews of key people in the education sector as well as from ministries in charge of monitoring SDG indicator reporting for Samoa, were conducted as part of this research. According to Bradford and Cullen (2012), within the social sciences, qualitative semi-structured interviews is one of the most widely used and dominant methods of data collection. McIntosh and Morse (2015) also pointed out that data obtained from semi structured interviews could not be collected using structured questionnaires or participant observation. Semi-structured interviews are characterized by comparing participants' responses as all participants are asked the same questions in the same order, hence the data collected are comparable and can be quantified.

This method was ideal for this research as it allowed for in depth exploration of subjective viewpoints and gather in-depth accounts of people's experiences. Bradford and Cullen (2012) highlighted that *"Qualitative semi-structured interviews can be used as much to consider experience, meanings and the 'reality' of participants' experiences as they can be used to explore how these experiences, 'realities' and meanings might be informed by discourses, assumptions or ideas which exist in wider society"* (p.2).

For the planning and conducting of semi-structured interviews, Owen (2014) suggested the inclusion of three types of questions: a main question, a follow-up question, and then a probe. He explained that the main question was to focus on the substance of the research problem, the follow-up and probe questions then helped to ensure further pursuit of depth, detail, and nuance on the topic.

The selection of the interviewees was also key and determined by individual's leadership roles and position in the education sector, and by their ability to influence or participate in determining the national education indicators used to monitor the Education sector plan that outlines Samoa's education development. Table 7 below lists the government officials interviewed during this research.

Table 7: Interviewees List

Source: Author

Reference	Job Title
Official #1	Chief Executive Officer (CEO) Samoa Qualification Authority (2020) Former Assistant CEO for Planning and Policy)
Official #2	Former CEO Samoa Qualification Authority (2017-2019)
Official #3	Assistant CEO Economics Statistics Division, Samoa Bureau of Statistics

Selection and process used for the semi-structured interviews:

1. A number of key people who have the knowledge, influence or direct input in the production of national education indicators were initially selected;
2. A formal letter was sent to the head of each ministry that house these chosen individuals on whether the identified staff could be interviewed on the research topic. The research question was provided for ministry consideration;
3. Interviewees were contacted and a time was set for the interview along with additional information such as the list of questions to be discussed during the interview;

4. Four to five key questions that would prompt and guide interviewees to focus on the topic, were asked during the interview. The questions were designed to allow interviewees to answer in their own terms and discuss them in the light of their own experiences; and
5. Interview contents were transcribed and send back to interviewees for confirmation and final agreement to use their quotes in the research report. Interviewees were given two weeks to provide any comments or changes they may have wanted to make before proceeding with the incorporate of the semi-structured interviews findings and their analysis in this research thesis.

3.4 Caution and Limitations to Take into Consideration

Both Finnegan (2006) and Prior (2011) advised caution as underlying all documentary research on whether one can trust the overt message in the source suggesting that authors or organisations could have agendas that could impact on the partiality of the message presented. Zeitlyn (2005) went further by recommending that caution should be extended beyond a consideration of what is written, to a concern with what has been omitted. Darrel Caulley cited in Owen (2014) also suggested that “*the facts of history and evaluation never come to us ‘pure,’ since they do not and cannot exist in a pure form; they are always refracted through the mind of the recorder especially since the facts we find in document ‘have been selected by the recorder’*” (p. 10).

The above concerns and limitations were taken into consideration while carrying out the document analysis through triangulation. Triangulation is a process whereby data is confirmed and verified by using different sources, research methods or approaches (Bowen, 2009). For this research, the use of the document analysis was combined with the semi-structured interview to strengthen the academic rigor and accuracy of the research findings. Documents published by governmental or UN agencies tend to provide the official position of the global goals and SDG indicator as well as of Samoa’s own government aspirations and development goals for education. Such documents were used to examine the linkage and potential

compatibility between SDG indicator and Samoa's indicators or reversely to identify areas where synergies were lacking. Attaining the interviewees' views and experiences of how such a marriage of global goals and national development priorities were actualise in reality, provided another level of understanding and in-depth glimpse into the issues encountered by those involved in the reporting and monitoring of both national and SDG indicators. Consequently, as Patton (1990) mentioned, triangulation will therefore help to guard against any claims that research findings are simply a product of a single source, a single method, or a single researcher's bias.

3.5 Ethics

Banks and Scheyvens (2014) warned that ethical issues need to be seriously considered for all field researchers in the developing world. Such issues include the recruitment of interviewees, obtaining informed consent through to the privacy and handling of collected data. The research methodology for this study was aligned with the in-house ethics process of the Development Studies programme at Massey University. In the in-house ethics application, all the due consideration of ethical issues that may arise in this field of work were noted and discussed with a panel of academic staff. There is notably a moral obligation that Development Studies research should not only do 'no harm' but also seek 'empowerment' (Banks & Scheyvens, 2014). This was done by taking into consideration the privacy and confidentiality of research participants' shared interviews by ensuring that their views and final recordings used in the study were what they agreed to and would not physically or even more importantly professionally harm them in any way.

As the interviews were carried out with participants working in Samoa, I also enquired about any formal Ethics or official protocols that may have been requested by any national institutions to conduct this research. I was informed that no formal structure was in place in Samoa about such official protocol but that academia and government official were comfortable with the

Massey University's ethics process in place and applied in this situation to cover any potential ethics consideration.

3.5.1 Privacy & Confidentiality

Privacy and confidentiality were enforced by providing all interviewees with a consent form outlining what the intended research was for and how their responses in the interviews was going to be treated. The form also stated that each interviewee was identified by her/his official role and the corresponding view recorded in term of his/her professional capacity.

3.5.2 Use of Information

The information collected from interviewees was restricted to the purposes of producing research findings and discussions chapters for this research report and possible academic publications resulting from this report. Apart from keeping the transcripts for auditing or review purpose of supervisor or programme coordinator to ensure authenticity of student's work, the information collected during the semi-structured interview is not to be used for any other purposes.

3.5.3 Promising Access to Information

From the interview process throughout the write up of this thesis, interviewees were given the opportunity to access the selective transcript with information they have provided and further clarify it. In addition to the above, I endeavoured to share with them during the write up of this report any direct quotes extracted from individual interview findings.

3.5.4 Positionality

According to Scheyvens (2014), positionality is acknowledgement by the researcher that his or her own position in relation to the research may influence aspects of the study, this may include the types of information collected and the way in which it is interpreted.

The main conflict of roles I anticipated for this research was my own positionality, both from a professional and personal standing point. As a professional, I am currently working and have previously worked for UN agencies that deal with education data and SDG data collection. I have also worked in close proximity with many of the key staff that were central to answering my research questions.

In relation to potential negative impact such positionality may have had on this research, I would like to declare the separation of my professional capacity and role of academic student. Being aware throughout my research of this potential influencing force and biases from my work experience, I constantly questioned the reasoning of my research and I related my findings to those of other researchers and applied academic rigor to the body of literature in this field.

Secondly, given that Samoa is a small island with a relatively small population, it is part and parcel of being Samoan to be related, to socially know or to have some kind of connection to any of the interviewees. I acknowledge this as a fact of life in the islands and am aware that it might be a little bit more difficult to fully keep the amount of objectivity and separation necessary to carry out a development study.

3.6 Chapter Summary

Two methods we employed to carry research for this report. Firstly, document analysis was used to establish the linkages between the development goals at the global and national level as well as to determine countries' limitation on data collection and monitoring. Secondly, semi-structured interviews of three government official were also conducted to capture in depth knowledge from those in positions of influencing the development and strategic direction of the education sector in Samoa.

To strengthen academic rigor of this research and ensure optimum accuracy, findings from the semi-structured interviews were validated through triangulation whenever possible, using scientific, governmental, and regional publications.

Privacy and confidentiality of research participants were ensured by identifying them by their official roles and recording their views in term of their professional capacities. In addition, before the interviews, respondents signed a consent form indicating their willingness to participate in the research and their right to withdraw or decline to answer any questions at any time during the interviews.

4. Research Findings

4.1 Introducing this Chapter

This chapter outlines the findings from this research by highlighting a successful example of Australia in localising SDG indicator 4.3.1, and exploring how Samoa can localise this SDG indicator at an operational level. In localising indicator 4.3.1, this aims to foster ownership of its development, yet taking into consideration the countries limitation on reporting, in term of its institutional and human capacities.

4.2 Case Study of How Australia Localised its SDG Indicator 4.3.1

Each of the relevant global SDG indicators have been assessed by the Australian Government and allocated a colour code to highlight the national availability of the required dataset. There were four main colour codes including (1) Green which was applied to datasets that were reported online (2) Orange which was allocated to exploring data sources, (3) Red was used when there was no suitable Australian data source or when the global indicator was deemed irrelevant to Australia and (4) Grey was applied to the indicators that had no globally agreed methodology (Department of Foreign Affairs and Trade, 2018).

SDG indicator 4.3.1 was labelled as green given that it was being reported online through the Australian SDG reporting platform. The collation and reporting of the data followed the globally agreed methodology for this indicator and has been identified by the responsible agency as the most appropriate data source. The agency responsible for this data entry in Australia is the Department of Education and Training. The agreed unit of measurement is percentage of Australians aged 15-74 years in TVET or higher education (Department of Foreign Affairs and Trade, 2018).

4.2.1 Collection and Data Sources to Calculate Indicator

The main data collection sources for compilation of the 2018 report included the Survey of Work-Related Training and Adult Learning, which in 2016-17 was a topic on the Multipurpose Household Survey which was a supplement to the monthly Australian Bureau of Statistics Labour Force Survey (LFS) conducted throughout Australia from July 2016 to June 2017. Key exclusions from the survey included persons who were also excluded by the LFS in April 2013 as well as people who were living in Indigenous communities and non-private dwellings (such as hotels, hospitals, and prisons). The survey randomly selected one person aged 15 years and over from each selected household. Data were collected by interviews which were primarily conducted over the telephone, with some interviews conducted face-to-face. The interviews were conducted using Computer Assisted Interviewing to record responses directly into a questionnaire in a laptop (Department of Foreign Affairs and Trade, 2020).

4.2.2 Reporting Platform

The Australian Government's Reporting Platform on SDGs Indicators is a single point of access platform for interested stakeholders. <https://www.sdqdata.gov.au/goals/quality-education/4.3.1>. This is part of a comprehensive SDG reporting framework which includes Australia's 2018 VNR and the Australian SDGs website (Department of Foreign Affairs and Trade, 2020).

4.3 Linkage between SDG Indicator 4.3.1 and the National Development Strategies

In 2016, a UNDP funded project assisted the Government of Samoa with the SDG indicators localisation process. A key recommendation from this report was to advocate the localising of SDGs targets (and associate indicators) to incorporate them into sector plans to ensure ownership, coherence and reduce monitoring and evaluation workload (Moustafa, 2016). A matrix linking SDG indicators with their localised counterparts was developed. However, the matrix did not include SDG indicator 4.3.1 because it did not have any localised data set and needed further development to be contextualised to Samoa's reporting needs.

Since Samoa's first Voluntary National Review in 2016, both the Samoa Development Strategy 2016/17 – 2020/21 and the Education Sector Plan 2019-2024 have been updated. Even though both documents present some degrees of alignment with SDG 4 and target 4.3 at the national monitoring frameworks level, such alignment did not exist at the indicator level for 4.3.1.

Table 8 summarises the key findings from the documentation analysis on the existing linkage between SDG 4 and the National Development Strategies. For example, the Samoa's Development Strategy social priority outcome 7 states, that the government "*support(s) the global Sustainable Development Goal 4: Ensure inclusive and quality education for all and promote lifelong learning for all*" (Ministry of Finance, 2016). Globally the overarching 2030 Agenda for Sustainable Development education goal (SDG 4) commits to provide inclusive and equitable quality education at all levels. As shown on Table 8 the wording between the global and national goals and targets are very similar, it is at the implementation level however, that the discrepancy and absence of indicator 4.3.1 is highlighted.

Table 8: Alignment Global Goals, Targets, Indicators to National ones

Source: Author

Objective	Global Agenda	Samoa's relevant strategies, plans and activities prioritised
<p><i>Improve Assess to TVET/HE</i></p>	<p>Sustainable Development Goal 4: Inclusive and equitable quality education and promote lifelong learning opportunities for all.</p> <p>SDG Target 4.3: To have equal access for men and women to TVET/ Higher Education in both formal and non-formal education.</p> <p>SDG Indicator 4.3.1: Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex</p>	<p>Samoa Development Strategy: <i>Key outcome 7:</i> Quality Education and Training Improved - All people in Samoa are educated and productively engaged.</p> <p><i>Strategy:</i> Education and training opportunities access increased, especially for vulnerable groups</p> <p>Education Sector Plan: <i>Sector Goal 2;</i> Provide everyone with access to good quality education and training opportunities.</p> <p><i>Expected outcome;</i> Increased rates of participation and completion at all levels.</p> <p>Sector Outcome indicator</p> <ul style="list-style-type: none"> • Gross enrolment in formal PSET (ratio and numbers) • Gross graduation in formal PSET (ratio and numbers)

Much of the new Education Sector Plan is a continuation of activities and focused priorities from the 2013-2018 plan taking into account the lessons learnt. This confirmed what some of the government officials highlighted during their interviews. One even highlighted and debunked the “*perception that an outside entity comes in with something new and the countries are expected to do a huge overhaul to try and match the SDG and throwing out what we already have or have done*” (interview with Government Official#2, 2020). SDGs initiatives were not new to Samoa and the Government was already progressing the Agenda. The sector goal 2: ‘*Provide everyone with access to good quality education and training opportunities*’ broadly encompass SDG target 4.3. In addition, the sector outcome indicators also prioritise Early Childhood Education and transition from primary to secondary (in Samoa this is 12-14 years’ age group) as well as inclusive education for disabled students. There is one indicator on gross

numbers of PSET students, but it does not elaborate more on any other data beyond enrolments. PSET comprising all Post School Education and Training including TVET and Universities, all data on formal education, including enrolment data for this sub sector could be captured in one place. There was no focused strategy or activities on increasing the number of youth and adults' access to TVET and further studies/training mentioned in the Education Sector Plan.

4.4 Potential for localisation of SDG Indicator 4.3.1

The document analysis of reporting statistics on education shows that a relatively large amount of data related to SDG indicator 4.3.1, is being regularly collected at the national level by ministries such as MESC and SQA to inform policies and decision making for the sector (Table 9). Other agencies such as the Ministry of Health or the Samoa Chambers of commerce also collect data, notably on workshops or in-house training which are considered to be part of NFL. The Ministry for Women, Community and Social Development is mandated to link government initiatives with the community and regularly hold trainings and programmes. Government training data from each ministry divisions also need to be reported at the end of the financial year as a requirement for validation of resource allocation such as budgeted expenditure.

Table 9: Reporting Lines for Data Related to SDG Indicator 4.3.1

Source: Author

	Global	Established Global Mechanism of data collection for indicator 4.3.1	National	Possible National Mechanism of data collection for indicator 4.3.1
Custodian/ Reporting Agency	<p><i>UNESCO Institute for Statistics (UIS)</i></p> <p>Develop global methodology for calculating SDG indicator 4.3.1.</p> <p>Collects statistically sound data (country administrative, UIS surveys, globally made available stats) to calculate SDG4 indicators.</p> <p>Sends out annual Education surveys to all countries to collect administrative data on formal education.</p> <p>Mandated to report SDG4 indicators to UN Statistics for global monitoring and reporting.</p>	<p>Formal Education</p> <p><i>UIS Formal Education Surveys</i></p> <ul style="list-style-type: none"> - Students and Teachers (ISCED 0-4) primary, secondary, TVET - Students and Teachers (ISCED 5-8) Higher Education <p>Non-formal Education</p> <p><i>Other International Surveys</i></p> <ul style="list-style-type: none"> - EU Adult Education Survey - OECD Survey of Adult Skills 	<p><i>Samoa's National SDG Taskforce</i></p> <p>Drives monitoring and reporting processes including coordination unit for compiling Samoa's Voluntary National Review and final report.</p> <p><i>Samoa Bureau of Statistics</i></p> <p>has central role in monitoring in collaboration with all other stakeholders</p> <p><i>Education Sector</i></p> <p>Sector coordinator work with Task Force to review and assess indicators</p> <p><i>MESC, SQA and NUS</i></p> <p>Lead ministries are responsible for implementation</p> <ul style="list-style-type: none"> - MESC & SQA collects administrative data from education providers - MESC and SQA completes UIS Education surveys on administrative school data on Formal education. 	<p>Formal Education</p> <p><i>Administrative data</i></p> <p>MESC (ECE, primary, secondary) – Schools Survey (Annual)</p> <p>SQA (PSET) – Education Provider Survey (Annual)</p> <p>Education Statistics annual publications</p> <ul style="list-style-type: none"> - Education Statistical Digest (MESC) - PSET Statistical Bulletin <p>Non-formal Education</p> <p><i>National Statistics - Samoa Bureau of Statistics (SBS)</i></p> <ul style="list-style-type: none"> - Population statistics - Labour Force Survey <p>Tracer studies – SQA (Graduates survey in finding work)</p> <p>Data from other Ministries on training for staff and stakeholders</p>

4.4.1 Interviewee General Perspective on the Localisation of SDG Indicator 4.3.1

The above example of how Australia localised SDG indicator 4.3.1 provide a good background on how Samoa could develop its own localised indicator. However, before launching into considering the localising process, it was important to check its feasibility and relevance with experienced professional in the field, below is one answer received:

“SDGs are not created in a vacuum... they are created with many stakeholders been considered. Be careful and question the so-called localisation of SDG as if countries do not have SDG in their context without calling it SDG. They (SDG) are not new... they come and there already have relations and the countries get to match where they link at. There is a perception that an outside entity comes in with something new and the countries are expected to do a huge overhaul to try and match the SDG and throwing out what we already have or have done”.

(Interview with Government Official #2, 2020).

4.4.2 Samoa Institutional Capacity in Localising SDG Indicator 4.3.1

The question is on the intent of the indicator and what can be realistically realised. It is acknowledged in the Pacific Roadmap that not all regional set of indicators will be measurable by data that accords to internationally tested standards and methodologies, yet they can provide a useful overview of progress in the regional context (Pacific Sustainable Development Goals Taskforce, 2020). Therefore, localising SDG 4.3.1 to align it with the Samoan education sector reporting requirement could allow data collection from existing sources.

“SDG (indicator 4.3.1) was already in mind when developing the Education Sector Plan... when you look at the ESP and think of participation, we think enrolments and for youth and adults, we think PSET data. For the formal data we are referring to the enrolments but with the non-formal we also have non-formal data collected. For SQA, we look at the registered (programmes) for recognition of learning and we capture data that are provided to us. Yet there are many other ministries that also collect their own data of their in-house training that are not necessarily reported to us”.

(Interview with Government Official #1, 2020).

4.4.3 Discrepancies between Global and National Components of SDG Indicator 4.3.1

The definition of global SDG indicator 4.3.1 has not been included in the Samoan Education Sector Monitoring Framework. Although the wording of the SDG indicator is set at the global level it is assumed that the wording used would encompass universal values and priorities.

“Often the priorities are very similar between developing countries, however the contextualising to the situation can be a real challenge”.

(Interview with Government Official #2, 2020).

According to the global definition of SDG indicator 4.3.1, there are three relevant concepts of the target covered by this global indicator include:

- i) Access by youth and adult;
- ii) Formal and non-formal education and training; and
- iii) Disaggregated by sex.

The definition of youth and adults based on the agreed UIS methodology, it is noted that the UN has adopted for the chronological definition of youth as the persons between the age of 15 and 24 years since 1981, however, it is noted that this definition is implemented “*without prejudice to other definitions by Member States*” (United Nations General Assembly, 1981).

To align as much as possible, the global and national indicators definitions, a few considerations needed to be taken into account. These are described below:

- i) Access by youth - “*For PSET...the youth start from 16 to 29 years old. Data on enrolment is collected only for the formal education*”.
(Interview with Government Official #1, 2020).

Currently administrative data from education providers do not provide disaggregation of students by age due to privacy issues. However perhaps as a consideration to facilitate capturing data for this indicator and others with the same disaggregating requirements, is to include a tick box of age range in the surveys (Ages (15 – 24 years) and (25 years and over)).

- ii) Samoa PSET Strategic Plan 2016-2020 defined both formal and non-formal education and training as being part of PSET as follow:

Formal PSET - systematic, organised and structured education and training as occurs in technical training institutions and universities leading to recognised qualifications.

Non-Formal Education and Training - any organised educational activity that takes place outside the formal educational system
(Samoa Qualification Authority, 2017).

- iii) Disaggregated by sex is already a standard practice in collection instruments of formal education. However, this is not necessarily captured in data collected by ministries other than MESC, when providing trainings either internally or externally. It is therefore suggested that the Government

of Samoa make it mandatory to report disaggregation for each training provided by government ministries.

4.4.4 Other National Data Source relevant to the Calculation of SDG Indicator 4.3.1

Other data currently available or collected by diverse governmental agencies that could be used for the calculation of SDG indicator 4.3.1 include:

Samoa Bureau of Statistics

- Population censuses and surveys for population estimates by single year of age (census completed every 5 years - latest 2016, estimations reviewed annually);
- LFS (latest 2017). National survey that already captures disaggregate data by sex as well as distinguish youth (15-24 years) and adult (25+ years) according to international definitions. Also captures in Section c1 of the LFS (Samoa Bureau of Statistics, 2020) - Training within the last 12 months (outside of the general education system).

Samoa Qualification Authority

- Non-Formal Education; Administrative data from schools and Education providers (collected annually);
- Tracer studies – graduates from formal post school education and training (PSET) providers in Samoa.

4.4.5 Institutional Consideration for the Localisation of SDG Indicator 4.3.1

A collaboration and merging of several surveys have been suggested as a way to capture the data needed from different agencies. One SQA official for example, proposed to merge the *LFS* and *Tracer Study*. Different ministries such as the Ministry of Commerce, Industry and Labour which focus on the private sector (employment), and SQA that target graduates would benefit

from such combined surveys. It could also be more cost effective as well as bringing several technical knowledge together, including SBS expertise in collecting and analysing data and SQA technical expertise on the education sector challenges.

The streamlining of multiply data sources will come down to a consideration of who will be responsible for collating data and reporting on SDG indicator 4.3.1. This requires coordination between ministries and organisations, commitment of financial and human resources as well as agreements between different sectors to work together to progress reporting of this indicator. This can be a challenge for a developing country such as Samoa that already has strained budgets, limited capacity and where data sharing between organisations can be inefficient. However, as Samoa annually completes the UIS questionnaires on formal education (ISCED 0-4) & (ISCED 5-8), this reporting mechanism could be capitalised to streamline the formal education data including students age groups and their classifications of programme (TVET, certificate, Bachelors, Masters and Doctorates). This could be a way to not only takes into account local context but also to incorporate international standards and classifications.

4.5 Chapter Summary

Countries such as Australia have successfully localised their SDG indicators, including SDG indicator 4.3.1 by ensuring relevant data to calculate this indicator are captured by the relevant government agencies. Once data is collected and compiled by the appropriate agency in this case the Department of Education and Training, data on SDG indicator 4.3.1 are made available to interested stakeholders via an online reporting platform. Throughout this process, one perceives that localisation equates to aligning and embedding SDG indicator 4.3.1 into the local context.

This research's findings suggest that the Australian model of localising SDG indicator 4.3.1 and aligning it with government agencies reporting requirement could allow data collection from existing sources and therefore reducing the pressure on Samoa institutional capacity. The

document analysis revealed that a relatively large amount of data related to SDG indicator 4.3.1, especially on non-formal education, is being regularly collected by diverse ministries. However, the streamlining of multiply data sources would require coordination between ministries and organisations, commitment of financial and human resources as well as agreements on responsibilities between different sectors to work together and progress reporting. Surveys such as the LFS and Tracer Study could also be merged to facilitate data collection.

To accommodate Samoa education sector's context, the unit of measurement of a localised SDG indicator 4.3.1 would need to be altered to comprise two age ranges: 15 – 24 years and 25 years and over. To allow better alignment with global SDG indicator 4.3.1 and therefore more accurate comparisons with other countries, the Government of Samoa would need to make reporting on gender and age disaggregation mandatory for data on training provided by ministries and education providers.

5. Discussion and Conclusion

5.1 Introducing this chapter

This research report endeavoured to answer one question, ‘what would localizing of global SDG 4.3.1 indicator look like in the Samoan context that fosters ownership of its progress, and how would it compare to its global counterpart?’. The findings of this research answered this question by firstly highlighting the absence of both, the global indicator or a localized indicator 4.3.1 in Samoa’s development strategies and frameworks. Secondly, to demonstrate how to operationalize the construct of a localized indicator 4.3.1 and in doing so also highlighting some of the key challenges that can be expected in the localization process.

The final consideration to the research question is how a localized indicator would compare to its global counterpart. The most prominent difference at its essence, is international comparability because they are collected by international accepted instruments (surveys, internationally accepted databases) following the globally accepted methodology hence can be calculated and reported by custodian agencies for global monitoring reporting. Whereas a localized indicator 4.3.1 which may reflect local context, can also align with international standards, but is reflective primarily of a specific country’s progress. In other words, it can be used to report national and even regional progress on SDG monitoring, but not accepted at the internationally comparative reporting level.

5.2 Measuring SDG Global Progress or Nationally Defined Progress

As mentioned in the literature review, there is much debate around what and especially who is the SDG framework really supposed to be reporting for. The countries whose data is used to calculate the indicators or the international audience that is using it to compare between countries and monitor global progress. Advocates of cross-sectional analyses are generally looking for the knowledge of ‘the best practice’, while advocates of time-series are looking more for insights into ‘*the best fit*’ (Ramalingam, Laric, & Primrose, 2014). Since Chamber’s seminal

call to ask “*Whose reality counts*” (1997) and Estrella & Gaventa’s (1998) research into “*Who is counting?*”, Prinsen (2019) begs the question of whether is it time to ask, ‘For who or what are we counting?’. This is a very important and relevant question in today’s body of literature and the debate on the discourse of Agenda 2030 and especially the purpose of the SDG framework.

For Samoa, the willingness to participate and be part of the Agenda is evident in the conscious effects to align sustainable development goals and targets into national strategies and frameworks. However, when it comes to implementation and actions taken to progress development work in country, the national indicators selected to monitor this progress is very much tailored to the local context. In the case of the education sector, this local perspective includes such considerations as continuing already committed priorities as deemed by sector stakeholders. It must also incorporate support needed for existing ministry initiatives such as Inclusive Education and the real struggle to prioritise limited resources in an already loaded agenda for education development. Education is a core sector for any country but more so for Samoa as a large portion of its population are in schooling age groups.

Given that most students in formal education are in ECE, primary and secondary schools, it is not surprising that a large proportion of much need resources and efforts are concentrated outside of education for post school education and training. It is therefore understandable that localisation of SDG indicator 4.3.1 is not a high enough priority to reach the front of the queue in a long line of activities, that need to progress the nation’s march on a more equitable and learned future.

It must be noted though that non-reporting of SDG indicator 4.3.1 at the international level or not localising it to the Samoan context, does not mean that there is no progress being made or even that ensuring equal access to TVET and higher education is not a priority for Samoa. Far from it, progress has been made in this area but the focus and perhaps more specifically the means of capturing these effects in key performance indicators that have different take or emphasis for the means of verification. As noted in Table 10, Samoa’s measurement to monitor

access to TVET and HE is the gross numbers of enrolment in PSET. This may not be as all-encompassing of accounting for youth and adults in accessing all types of training as depicted in the global indicator, but it does provide data within the scope of control that the education sector has over its own dominion. Which is a significant consideration when one has to collect, validate and use the data to make informed decisions and regularly monitor progress.

Table 10: Global versus National Focus and Priorities According to Each Framework

Source: Author

	Global SDG 4, target 4.3	Samoa’s policies and activities on access to education
Focus	To show the level of participation of <i>youth and adults in education and training of all types</i> . A high value indicates a large share of the population in the relevant age group is participating in formal and non-formal education and training.	Government focus is on; <ul style="list-style-type: none"> - increase assess for <i>Early childhood education (ECE)</i> - Increase assess of <i>primary students</i> entering secondary school - <i>Gross numbers of enrolment in Post School Education and Training (PSET)</i> incl. TVET and higher education - <i>Inclusive Education (IE)</i>
Priority	Ensuring better assess of youth and adults to TVET and higher education and training to promote lifelong learning.	Priority is more on Early childhood education and transition from primary to secondary (in Samoa this is 12-14 years’ age group) as well as inclusive education for disabled students. Access to PSET is captured via gross numbers of enrolment in this sub-sector.

5.3 SDG reporting – Global Conformity or Country Reality

Given the absence of globally reported data for Samoa on SDG indicator 4.3.1 nor any regional or locally define one existing, it would be a huge disservice to Samoa and in light of this research, to say that non reporting to the global system equates to no progress being made in this area by the country. It is a fact that Samoa along with most countries in the Pacific region are well documented for non-reporting at the international level (United Nations Educational Scientific and Cultural Organization, 2017a). When one compares the Pacific region to others around the world on the UIS database in terms of SDG4

indicators, the Pacific region is one of if not the lowest responders of education surveys which gathers the data needed to calculate SDG indicators (United Nations Educational Scientific and Cultural Organization, 2018).

What does this mean for a country if its data is not published and reported at the international level? In the Pacific context, it means that most times when global publications such as the Global Education Monitoring report is released, many Pacific country data is missing and much of the Pacific discourse and comparisons are done only on the few states that report normally, including Australia and New Zealand. This loses and in many instances dilutes the diversity of the education picture and progress made over time for the region and of Pacific island countries. These reported values and education indicators are used greatly by donors and development partners to inform decisions on priority areas and assistance to be provided in aid and technical capacity.

5.4 Further Consideration in Localising SDG Indicator 4.3.1

Patole (2018) emphasised a key concern that must not be underestimated, that is real difficulties encountered by LDCs and MICs in their institutional capacity to collect useful data on a national basis. Especially when combining this with the need for robust and statistically sound data, a lot of resources and careful mapping of where the data comes from, stored and how it's to be used is key to ensuring that local and international statistical needs will be met. SBS given its mandate and expertise in data collection would be the logical agent to drive this activity with SQA and selected relevant ministries.

One other reflection to consider in light of this research is the value put on the localised SDG indicator 4.3.1 by those who have to create and monitor it, whether they believe and find it a worthwhile exercise to spend time, funds and people resources to develop and sustain it. MacFeely (2017) noted that one of the biggest challenges facing the SDGs is that in most countries, SDG had not formed part of the national discourse. Hence coordinating ministries such as the national statistics offices will be forced to be engaged whether they want to or not.

5.5 Consideration for Future Research

5.5.1 What is the End Goal, Quality Education versus Access to Education?

Although it was not covered in this research and its objective, the above question of what is the end goal, quality education or access to education was brought up by one of the interviewees.

SDG indicator 4.3.1 may not be “a good gauge for quality of education but maybe for access... there is much research in regards to quality, access and cost of education. It’s been noted that when quality and cost (affordability) is high, can limit access for many. The same can be said when (there is) high access, the quality can suffer, and cost is a limiting factor”.

(Interview with Government Official#2, 2020).

It is a very valid question as discussions were aimed more at highlighting the fact that different indicators measure different aspects on the same issue. In Samoa, the focus is trying to bring up the quality of courses being offered to students and make sure they are fit for purpose and meet standards set by the qualification authority. It would be an interesting study to gauge beyond the statistical measurement of progress but engage stakeholders on the true impact of being able to access affordable TVET and higher education for women and men in Samoa.

5.5.2 Cost of Education Prohibit Access

Other factors such as costs and affordability have been noted to influence access to education.

“For SQA, it’s important that we our students come out with a quality education regardless of which level (TVET or higher education. For SQA we have been working on the quality (of the qualifications/programmes)

now working on relevance and accessibility (to PEST education) is an issue. In reality if the cost to get into the programmes etc. is not affordable to students/families, they will not be able to access any (further) education. We need a few more scholarships that would allow more students to access these higher programme and further studies”.

(Interview with Government Official #1, 2020).

For Samoa, given the low wages and disposable income per household are not very high, affordability of programmes is a genuine limiting factor for accessing into TVET and higher education. For many families and individuals, the lure of gaining employment and earning money to support families and familial obligations will exceed pursuing further education especially if it adds costs to an already stretched income. The question then deems of whether SDG indicator 4.3.1 (participation rates for youth and adults) is a good measurement for SDG target 4.3 which aims to promote equal access of women and men to affordable TVET and higher education.

5.6 Final Comments

There has been much debate around SDG indicators even before the 2015 adoption of the Agenda 2030 and its monitoring framework. Knowing this conversation, it will continue to dominate development discourse for the next ten to fifteen years with a lot more changes and adjustments to evolving realities that is the development dialogue. The whole issue around data and who it belongs to and how it is reported is highly relevant to today’s development discussions because as Fukuda-Parr & McNeill (2019) aptly puts it, *“control of data is a powerful mechanism for shaping the strategies of a multitude of stakeholders, from national governments to development agencies to NGOs”* (p.14).

Hence it is not only just a matter of the processes of getting the data and what it measures but more for the countries, how it affects their own forward planning, ability to gain and have access to financing and assistance from external donors, organisations and facilities. The Agenda 2030 is a global agreement and solidarity of how development for all will unfold in the coming decade. However, it is the numbers that will determine who will get what, and what is prioritised or deemed worthy of attention, that, will be the interesting space to watch.

6. References

- Asian Development Bank. (2016). Key indicators for Asia and the Pacific. *Manila: Asian Development Bank*.
- Banks, G., & Scheyvens, R. (2014). Ethical Issues. In Scheyvens, R. (ed.). *Development fieldwork: A practical guide*. London, Thousand Oaks, New Delhi: Sage.
- Bell, S., & Morse, S. (2008). Sustainability indicators: measuring the immeasurable? *UK and USA: Earthscan*, pp. 251.
- Bertelsmann Stiftung and Sustainable Development Solutions Network. (2018). *SDG Index and dashboard Report 2018; Global Responsibilities, Implementing the Goals*. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network.
- Bowen, G. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, 37- 40.
- Bradford, S., & Cullen, F. (2012). *Research and research methods for youth practitioners*. London: Routledge.
- Brown, D. (2009). *Good Practice Guidelines for Indicator Development and Reporting*. Wellington, New Zealand.
- Carr-Hill, R. (2014). Measuring Development Progress in Africa: The denominator problem. *Canadian Journal of Development Studies*, 35(1), 136-154.
- Center for Open Data Enterprise. (2019). *SDG National Reporting Initiative*. Retrieved from: *The Center for Open Data Enterprise*: <https://www.sdgreporting.org/topic/reporting/>.
- Chambers, R. (1997). Responsible Well-being: A Personal Agenda for Development. *World Development*, 25(11), 1743-1754.
- Cobham, A. (2015). Uncounted: Power, inequalities and the post-2015 data revolution. *Development*, pp. 320–337.
- Department of Foreign Affairs and Trade. (2018). *Australia Voluntary National Review Report*. Canberra: Department of Foreign Affairs and Trade.
- Department of Foreign Affairs and Trade. (2020). *Australian Government's Reporting Platform on the SDG indicators*. Retrieved from *Australian Government's Reporting Platform on the SDG indicators*: <https://www.sdgdata.gov.au/>.
- Dooren, W., Bouckaert, G., & Halligan, J. (2010). *Performance Management in the Public Sector*. Oxford, UK: Routledge Ltd.
- Drucker, P. (1954). *The practice of management: A study of the most important function in America society*. New York: Harper & Brother.
- Education Sector Coordinating Division. (2019). *Education Sector Plan 2019-2024*. Apia: Ministry of Education, Sports and Culture.

- Estrella, M., & Gaventa, J. (1998). Who Counts Reality? Participatory Monitoring and Evaluation: A Literature Review. *Institute of Development Studies*, 1-70.
- Federal Statistics Office. (2020). The MONET 2030 indicator system. Retrieved from: <https://www.bfs.admin.ch/bfs/en/home/statistics/sustainable-development/monet-2030.html>.
- Finnegan, R. (2006). Using Documents. In R. Sapsford and V. Jupp (eds.), *Data Collection and Analysis*. London: SAGE Publications Ltd.
- Fortin-Rittberger, J. (2015). *Time-series cross-section*. London: SAGE Publications Ltd.
- Fukuda-Parr, S., & McNeill, D. (2019). Knowledge and Politics in Setting and Measuring the SDGs: Introduction to Special Issue. *Global Policy*, 5-15.
- Georgeson, L., & Maslin, M. (2018). Putting the United Nations Sustainable Development Goals into practice: A review of implementation, monitoring, and finance. *Geography and Environment*, 1-25.
- Global Spedition CSR Programme. (2020). <http://www.globalspedition.com/global-spedition-focusing-on-sustainability-3-2-2-3-2-2-2/>.
- Government of Samoa. (2016). Samoa Voluntary National Review. NYC: United Nations.
- Haggland, J., Catherwood, V., & Aikman, P. (2018). Evaluation of the Samoa Education Sector Support Programme: Final Evaluation Report. Wellington: Allen + Clarke, NZ Aid Programme.
- International Labour Organisation. (2014). Youth Employment in Samoa. A Situational Analysis. *The United Nations*.
- Jerven, M. (2014). Benefits and Costs of the Data for Development Targets for the Post-2015 Development Agenda. Copenhagen Consensus Center. Retrieved from: https://www.copenhagenconsensus.com/sites/default/files/data_assessment_-_jerven.pdf.
- Kates, R., Parris, T., & Leiserowitz, A. (2016). Editorial - What is Sustainable Development? Goals, Indicators, Values and Practice. *Environment Science and Policy for Sustainable Development*, 1-13.
- Labuschagne, A. (2003). Qualitative research: Airy fairy or fundamental? Retrieved from *The Qualitative Report*: <https://nsuworks.nova.edu/tqr/vol8/iss1/7/>.
- Lucci, P. (2015). 'Localising' the Post-2015 agenda: What does it mean in practice? London: Overseas Development Institute.
- MacFeely, S. (2017). Measuring the Sustainable Development Goals: What does it mean for Ireland? *Administration*, 41-71.
- MacFeely, S. (2018). The 2030 Agenda: An Unprecedented Statistical Challenge. Retrieved from *SDG National Reporting initiative*: <https://www.sdgreporting.org/topic/intro/#top>.
- Marr, B. (2008). Managing and delivering performance. How government, public sector and not-for-profit organizations can measure and manage what really matters. Oxford - UK: Elsevier Ltd.
- Marshall, C., & Rossman, G. (2006). *Designing Qualitative Research*. Newbury Park, CA: Sage.

- McIntosh, M., & Morse, J. (2015). Situating and Constructing Diversity in Semi-Structured Interviews. Retrieved from *Global Qualitative Nursing Research*: <https://journals.sagepub.com/doi/pdf/10.1177/2333393615597674>.
- McLennan, S., & Prinsen, G. (2014). Something old, something new: Research using Archives, texts and virtual Data. In R. Scheyvens (ed.), *Development field work. A practical guide* (pp. 81 - 100). London: SAGE Publications Ltd.
- Merry, S. (2011). Measuring the World; Indicators, Human Rights, and Global Governance. *Current Anthropology*, 83-95.
- Ministry of Commerce Industry and Labour. (2013). Samoa Labour Force Survey. Apia: Government of Samoa.
- Ministry of Education Sports and Culture. (2018). Education Statistical Digest. Apia: Government of Samoa.
- Ministry of Finance. (2015). Samoa Monitoring Evaluation Reporting Framework Manual for Sector Planning. Government of Samoa. Retrieved from Ministry of Finance: <https://www.mof.gov.ws/Portals/195/EPPD/SMERF%20Manual.pdf>.
- Ministry of Finance. (2016). Strategy for the Development of Samoa 2016-2020. Apia: Government of Samoa.
- Ministry of Foreign Affairs and Trade. (2016). Samoa's VNR Report Presentation. Apia: Government of Samoa.
- Mosse, R., & Sontheimer, L. (1996). Performance Monitoring Indicators Handbook. Washington, D.C. The World Bank.
- Moustafa, A. (2016). SDGs Localisation and M&E Framework. Apia: United Nations Development Programme.
- Oosterhof, P. (2018). Localising the Sustainable Development Goals to Accelerate Implementation of the 2030 Agenda for Sustainable Development: The Current State of Sustainable Development Goal Localisation in Asia and the Pacific. *The Governance Brief: Asia Development Bank*, 1-14.
- Organisation for Economic Cooperation and Development. (2008). Handbook on Constructing Composite Indicators: Methodology and User Guide. Paris: Organisation for Economic Cooperation and Development.
- Owen, G. (2014). Qualitative Methods in Higher Education Policy Analysis: Using Interviews and Document Analysis. *The Qualitative Report*, 1-19.
- Pacific Community. (2020). Sustainable Development Goals in the Pacific. Retrieved from: [https://stats.pacificdata.org/?locale=en&facet=Sustainable_Development_Goal&constraints\[0\]=Sustainable_Development_Goal%2C0%7CAll%20Sustainable%20Development%20Goals%23SDGALL%23&start=0](https://stats.pacificdata.org/?locale=en&facet=Sustainable_Development_Goal&constraints[0]=Sustainable_Development_Goal%2C0%7CAll%20Sustainable%20Development%20Goals%23SDGALL%23&start=0).
- Pacific Sustainable Development Goals Taskforce. (2020). The Pacific Roadmap for Sustainable Development. Retrieved from www.forumsec.org: <https://www.forumsec.org/wp-content/uploads/2018/10/The-Pacific-Roadmap-for-Sustainable-Development.pdf>.
- Patole, M. (2018). Localization of SDGs through Disaggregation of KPIs. Basel: MDPI.

- Patton, M. (1990). *Qualitative evaluation and research methods*. Newbury Park, CA: Sage.
- Prinsen, G. (2015). Measuring the Impact of a Kiss on Love: Designing Indicators for Multi-Dimensional Concepts such as Sovereignty, Resilience, Sustainability, or Fragility. In S. Blaise, V. David, & C. David, *Espace et développement durable* (pp. 351-569). Aix-Marseille: Presses Universitaires de Provence et Presses Universitaires d'Aix-Marseille.
- Prinsen, G. (2019). *Studying Islands on their own terms: Reflecting on SIGNS' methods and purpose*. Wellington: Massey University.
- Prinsen, G., & Purcell, G. (2013). *Measuring, defining and valuing change: A database on development indicators for policy makers, activists and researchers*. Development studies working paper series. Retrieved from Massey University.
- Prior, L. (2011). Using Documents in social research. In D. Silverman (ed.), *Qualitative Research* (pp. 93-110). London: SAGE Publications Ltd.
- Ramalingam, B., Laric, M., & Primrose, J. (2014). *From Best Practice to Best Fit: Understanding and Navigating Wicked Problems in International Development*. London: ODI.
- Roundtree, J., & Smith, A. (2016). Strength-based well-being indicators for indigenous children and families: A literature review of Indigenous communities' identified well-being indicators. *American Indian and Alaska Native Mental Health Research*, 23(3), 206-220.
- Samman, E., & Rodriguez-Takeuchi, L. (2013). *Old age, Disability and Mental Health: Data issues for a post-2015 framework*, ODI Background Note. London: Overseas Development Institute.
- Samoa Bureau of Statistics. (2018). *Statistical Abstract 2017*. Apia: Government of Samoa.
- Samoa Bureau of Statistics. (2020). Labour force survey (Questionnaire) 2017. Retrieved from: <https://www.ilo.org/surveyLib/index.php/catalog/2707/related-materials>.
- Samoa Qualification Authority. (2017). *Post School Education and Training (PSET) Strategic Plan 2016-2020*. Apia: Government of Samoa.
- Scheyvens, R. (2007). The idiosyncrasies of indicators. *DevForum*, 9-12.
- Scheyvens, R. (2014). *Development field work. A practical guide*. London: SAGE Publications Ltd.
- Technical Cooperation Group. (2018). *SDG indicator 4.3.1: Consultation on Definitions, Methodology and Formulation of Questions*. Mexico: Technical Cooperation Group.
- The SDG Education 2030 Steering Committee. (2020). *Sustainable Development Goal 4*. Retrieved from: <https://sdg4education2030.org/the-goal>.
- The Secretariat of the Committee for Development Policy. (2015). *Monitoring of Graduated Countries from the Category of Least Developed Countries as a complement to the 2015 triennial review: Maldives and Samoa*. Committee for Development Policy (pp. 1-24). New York: Committee for Development Policy.

- Ulbrich, P., Porto de Albuquerque, J., & Coafee, J. (2018). The impact of urban inequalities on Monitoring progress towards the Sustainable Development Goals: Methodological Considerations. *International Journal of Geo-Information*, 1-18.
- United Nations Department of Economic and Social Affairs. (2018). Handbook for preparation of Voluntary National Reviews. Retrieved from Sustainable Development Knowledge Platform: https://sustainabledevelopment.un.org/content/documents/25245Handbook_2020_EN.pdf.
- United Nations Development Programme. (2009). Handbook on Planning, Monitoring and Evaluating for Development Results. *New York: United Nations Development Programme*.
- United Nations Development Programme. (2019). Human Development Report 2019 - Beyond income, beyond averages, beyond today: Inequalities in human development in the 21st century. *New York: United Nations Development Programme*.
- United Nations Development Programme, UN-Habitat, & Global Taskforce. (2016). Roadmap For Localising The SDGs: Implementation and Monitoring at Subnational Level. Retrieved from: https://sustainabledevelopment.un.org/content/documents/commitments/818_11195_commitment_ROA_DMAP%20LOCALIZING%20SDGS.pdf.
- United Nations Development Programme, UN-Habitat, & Global Taskforce. (2019). Localising the SDGs. Retrieved from *localizingthesdgs.org*: <http://localizingthesdgs.org/>.
- United Nations Economic and Social Commission for Asia and the Pacific. (2017). Regional Meeting of Pacific SDG Coordinators and Agencies on Implementation of the Pacific Roadmap for Sustainable Development. *Apia: United Nations Economic and Social Commission for Asia and the Pacific*.
- United Nations Economic and Social Commission for Asia and the Pacific. (2019). Progress on the road to sustainable development in the Pacific. Retrieved from: https://www.unescap.org/apfsd/6/document/APFSD6_INF6E.pdf.
- United Nations Economic and Social Council. (2013). Resolution adopted by the Economic and Social Council on 24 July 2013. Retrieved from *UN Statistics Commission*: <https://unstats.un.org/unsd/dnss/gp/FP-Rev2013-E.pdf>.
- United Nations Educational Scientific and Cultural Organization. (2017a). Global Education Monitoring Report 2017/8: Accountability in education: meeting our commitments. *Paris: United Nations*.
- United Nations Educational Scientific and Cultural Organization. (2017b). SDG4 Data Digest 2017: The Quality Factor: Strengthening National Data to Monitor Sustainable Development Goal 4. . Retrieved from *UNESCO Institute for Statistics*: <http://uis.unesco.org/sites/default/files/documents/quality-factor-strengthening-national-data-2017-en.pdf>.

- United Nations Educational Scientific and Cultural Organization. (2018). Global Education Monitoring Report 2019: Migration, Displacement and Education – Building Bridges, Not Walls. *United Nations, New York*. Retrieved from: <https://doi.org/10.18356/22b0ce76-en>.
- United Nations General Assembly. (1981). Secretary-General's Report to the General Assembly. UNGA (p. A/36/215). *NYC: United Nations General Assembly*.
- United Nations General Assembly. (2020). Transforming our world: the 2030 Agenda for Sustainable Development A/RES/70/1. Retrieved from: <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>.
- United Nations Programme on HIV/AIDS. (2009). Monitoring and Evaluating Fundamentals. An Introduction to Indicators. *Geneva: United Nations Programme on HIV/AIDS*.
- United Nations Statistics Division. (2020a). SDG Indicators. Retrieved from: <https://unstats.un.org/sdgs/indicators/indicators-list/>.
- United Nations Statistics Division. (2020b). IAEG-SDGs Tier Classification for Global SDG Indicators. Retrieved from : <https://unstats.un.org/sdgs/iaeg-sdgs/tier-classification/>.
- Vanuatu National Statistics Office. (2012). Alternative Indicators of Well-being for Melanesia. *Port Vila: Malvatumauri National Council of Chiefs*.
- Webster, N., & Ravnborg, H. (2016). Monitoring the implementation of the Sustainable Development Goals – The role of the data revolution. *Belgium*. Retrieved from [http://www.europarl.europa.eu/RegData/etudes/STUD/2016/578020/EXPO_STU\(2016\)578020_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2016/578020/EXPO_STU(2016)578020_EN.pdf).
- Zeitlyn, D. (2005). The documentary impulse: archives in the bush. *History in Africa*, 32(1), 415-434.