School Nutrition Education Programmes in the Pacific Islands
Scoping Review and Capacity Needs Assessment

FINAL REPORT
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School Nutrition Education Programmes in the Pacific Islands Scoping Review and Capacity Needs Assessment

FINAL REPORT

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>CNA</td>
<td>Capacity needs assessment</td>
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<tr>
<td>ECE</td>
<td>Early childhood education</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FSM</td>
<td>Federated States of Micronesia</td>
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<tr>
<td>HPS</td>
<td>Health Promoting Schools</td>
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<tr>
<td>L&amp;T</td>
<td>Learning and teaching</td>
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<tr>
<td>MoU</td>
<td>Memorandum of understanding</td>
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<tr>
<td>NCD</td>
<td>Non-communicable disease</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<tr>
<td>PI</td>
<td>Pacific Island</td>
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<tr>
<td>RMI</td>
<td>Republic of Marshall Islands</td>
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<td>SNEP</td>
<td>School Nutrition Education Programmes</td>
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<tr>
<td>SPC</td>
<td>Pacific Community</td>
</tr>
<tr>
<td>SR</td>
<td>Scoping review</td>
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<tr>
<td>ToR</td>
<td>Terms of reference</td>
</tr>
<tr>
<td>USC</td>
<td>University of the Sunshine Coast</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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Explanatory notes

The following terminology is used throughout this report:

**Health Promoting Schools (HPS)**

Health Promoting Schools are an initiative of the World Health Organisation (WHO). WHO states that; *a health promoting school is one that constantly strengthens its capacity to function as a healthy setting for learning, living and working...Components of health promoting schools include formal and informal curricula in health; the creation of a safe, healthy and friendly school environment; the provision of appropriate health services; school health policies; and the involvement of the family and wider community to promote health* (World Health Organisation, *WPRO Health Promoting Schools Framework*).

**Nutrition curriculum**

The term curriculum can have different meanings, depending on the perspective used (UNESCO, *Education, Different meanings of curriculum* 2017). In this report nutrition curriculum refers to the presence of competencies/benchmarks, learning outcomes, activities or content that is to be implemented in teaching.

**School levels/grades**

Terminology defining a student’s year, or phase of education can vary across the countries included in this report. In general, early childhood education (ECE) refers to education prior to Primary school enrolment (although some schools may offer an ECE program). The terms Primary and Elementary school are used to define the second component of school years (usually age 5 - 12 years), while the terms High School and Secondary School are used to define the third major component of schooling. Across the Primary/Secondary and Elementary/High School, the definition of year of study may be referred to as a grade (i.e. Grade 5), form (i.e. form 7), or year level (i.e. Year 12) depending on the country.

**SNEP**

For this project, a School Nutrition Education Programme is defined as an intervention to educate school students on nutrition and food preparation with the aim of influencing healthy nutrition choice and practice at an age when life time behaviour habits are developing and in the wider community.
FAO also defines SNFE (School Food Nutrition Education) as consisting of coherent educational strategies and learning activities, with environmental supports, which help schoolchildren and their communities to achieve sustainable improvements in their diets and in food- and lifestyle-related behaviours, perceptions, skills and knowledge; and to build the capacity to change, to adapt to external change and to act as agents of change (FAO, Consultation Report).

School Food Programme
For this project, a School Food Programme is defined as an intervention that aims to provide access to food in the school environment. For example, this could be through the provision of lunch, or another meal, while the student is attending school.

Sports Programme
For this project, a Sports Programme is defined as a structured intervention whereby participation in a sport/or sports is encouraged. For example, this may be through the provision of a school or community-based sports group.

Please note:
As there are varied names for the Ministries included in this report, the generic terms Ministry of Agriculture (MoA), Ministry of Education (MoE), Ministry of Health (MoH) have been used when referring to more than one of these organisations. The term local refers to the country setting, while regional refers to the Pacific Island region.
Executive summary

**Background.** Nutrition is an important contributor to the health status of an individual, and wider community. The Pacific region faces many challenges including urbanisation, globalisation and climate change resulting in significant changes to the food environment, and consequently the health of these populations, particularly children and adolescents.

Nutrition during childhood and adolescence can have a significant impact on short and long-term health outcomes. The behaviours that one learns during this time can set the scene for adulthood. In all regions of the Pacific, children are required to attend school, and while the age of exit from school education may vary, this setting provides a unique opportunity to educate and motivate a sizeable proportion of the community.

The benefits of nutrition education can extend further than the classroom. Children and adolescents are well placed to influence their family and community, while teachers, school staff and the wider school community are also impacted by nutrition education. Considering how this education is delivered can also have wider impact on the community.

**Aim.** The aim of this project is to identify and analyse the capacity for School Nutrition Education Programmes (SNEP) in 14 Pacific Island countries to inform and propose recommendations for a sustainable regional and local SNEP.

**Approach.** A dual phase qualitative approach was employed to understand the current need and capacity for SNEP across the Pacific region to develop recommendations for country-specific and region-wide SNEP. A desk review to identify relevant background information and SNEP for each country was validated with semi-structured interviews with 88 key stakeholders. Interview questions were designed to confirm or amend SNEP details, identify other SNEP which may not have been found in the desk review, explore challenges and solutions, and discuss assessment domains (Enabling environments, Organisations, and Individuals), within the functional capacities of policy, knowledge capacity, partnerships and implementation. Stakeholders from a range of sectors and organisations with an understanding of/background in SNEP in their country were invited to take part in an interview.
Data obtained during interviews was transferred to a template and returned to the stakeholder via email for verification. The FAO capacity assessment matrix (CAM) summary table was adapted for analysis and synthesis of the findings based on the framework, objectives and questions used for each functional capacity and domain. The project team followed a process of content analysis to identify and group common themes. Common themes were then used to inform initial SNEP recommendations. The proposed SNEP recommendations (country specific and regional) were returned to stakeholders via email for feedback, while participants representing eight countries, Secretariat of the Pacific Community (SPC), FAO and University of the Sunshine Coast (USC) attended a workshop to discuss the proposed regional and country-specific SNEP.

**Findings.** Content analysis of meeting summaries revealed three types of SNEP in use in the Pacific region; curriculum, gardening and other (i.e. sport-based, school-food). All countries used garden-based activities but with varied and limited curriculum integration. Formal sport related activities were used in two countries, while school food programs are currently used to varying extent in three countries. The Health Promoting Schools Framework (WHO) is reportedly used in six PI countries.

The capacity to formulate and implement policies and legislation related to SNEP across the Pacific region varies as evidenced by the wide-ranging existence of supportive policy. Stakeholders reported that lack of policy, or the ability to enforce existing policy, impacts on the use and success of SNEP.

There is limited capacity to access, generate, manage or exchange relevant knowledge and adapt it to local systems across the Pacific region as evidenced through limited access to appropriate and credible learning and teaching resources and varying integration of nutrition in the curriculum. There are limited opportunities to upskill, for both teachers and other stakeholders (i.e. Nutritionists and Agriculturalists). While stakeholders were aware of some of the SNEP practices being undertaken across the region, it is difficult to share and exchange relevant knowledge due to geographical location, cost and technology (i.e. lack of internet access or slow download speeds).

While motivation exists, there are limited opportunities for stakeholders to connect, advocate and engage in networks, alliances and partnerships, particularly at a regional level. Most countries had a formal link with SPC and all with FAO, but no other formal nutrition education regional networks.
Stakeholders expressed a desire to be part of a regional network, recognising that activities and resources could be shared more broadly.

Stakeholders reported limited capacity to manage and implement programmes from planning to monitoring and evaluation, due to a lack of defined responsibility, access to infrastructure (facilities, resources) and aspects of the wider environment. Limited space for gardening and a lack of food preparation facilities impacted on the ability to teach practical agriculture/food production activities.

Stakeholders from six countries reported that the local food environment, for example the availability of local foods as compared to imported, highly processed foods made SNEP more difficult to implement, and challenged the success of these.

Discussion. There is a high of level motivation and several SNEP currently in place in the Pacific region. The stakeholders consulted are champions for SNEP, having played a significant role in developing and implementing these, often with limited resourcing. There is recognition of the benefits of SNEP, however, there are many challenges to designing, implementing and evaluating SNEP in this region. Capacity for SNEP in the Pacific region is currently limited in all three domains; enabling environments, organisations and individuals, however the success of current SNEP suggest that these can be successful, if supported appropriately.

Recommendations from this project are:

Recommendation 1. The FAO Subregional Office for the Pacific Islands, in conjunction with Secretariat of the Pacific Community, supports the development of a formal regional SNEP stakeholder network which is made available to stakeholders in all 14-member countries. It is recommended that this network is supported by an online forum, similar to that of the FAO Global Forum on Food Security and Nutrition ‘FSN Forum’.

Recommendation 2. The FAO Subregional Office for the Pacific Islands supports the development of a generic Learning and Teaching (L&T) resource kit that includes a framework and resources for curriculum review/redesign, and generic learning materials that can be contextualised at a local level.

Recommendation 3. The FAO Subregional Office for the Pacific Islands supports the trial of the generic Learning & Teaching (L&T) resource kit in one country from each of the sub-regional areas; Micronesia,
Melanesia and Polynesia. Representation from a country in each of these sub-regional areas would ensure more thorough evaluation of the effectiveness of the L&T resource kit.

**Recommendation 4:** The FAO Subregional Office for the Pacific Islands supports the development and trial of a series of formal and informal training modules for teachers, parents and community members.

**Recommendation 5.** The FAO Subregional Office for the Pacific Islands supports the formalization of a SNEP taskforce in each of the 14-member countries.

**Recommendation 6.** The FAO Subregional Office for the Pacific Islands supports a trial of the proposed local SNEP in one country.

**Recommendation 7.** Upon evaluation of the trial of one local SNEP, the FAO Subregional Office for the Pacific Islands supports the development of local SNEP in the remaining countries.
Chapter 1: Background

Nutrition is an important contributor to the health status of an individual, and wider community. The Pacific region faces many challenges including urbanisation, globalisation and climate change. These have resulted in significant changes to the food environment, and consequently the health of these populations, particularly children and adolescents. It is well recognised that dietary patterns high in nutritious foods, particularly fruits, vegetables and wholegrains, and low in fats, sugar, and salt, are associated with better health status. Conversely, dietary patterns with higher consumption of fats, salt and sugars, and less fruits and vegetables, are known to increase the risk of many health-related conditions. A healthy diet affects more than just physical health, with nutrition essential for growth and development, immunity, cognitive function, social development, and productivity (WHO, Nutrition homepage) (Food Policy Research Institute, Global Nutrition Report).

In the Pacific region there are considerable nutrition issues related to chronic undernutrition, micronutrient deficiencies and obesity; the ‘triple burden of disease’(Abarca-Gómez, Leandra et al., 2017; FAO et al., SOFI 2018). Concerningly the prevalence of obesity has risen amongst children and adolescents at a rapid rate in this region. Recent data reports that the prevalence of obesity in the 5 – 19 years of age group increased from 4 percent to just over 18 percent in the time from 1975-2016 (Abarca-Gómez, Leandra et al, 2017). Rates of childhood obesity are highest in Micronesia and Polynesia with almost a quarter of girls (24.5 percent) and boys (22.4 percent) in these regions obese. Even more concerning is that the highest obesity rates are seen in Nauru (girls: 33.4 percent) and Cook Islands (boys: 33.4 percent) (Abarca-Gómez, Leandra et al, 2017). While these statistics are noted, it is also apparent that undernutrition is of concern in the Pacific region, with both stunting and micronutrient deficiencies present, both in those who are under, and overweight. Much of this is likely due to changes to the food systems in these areas. As globalisation and urbanisation occur in the Pacific, traditional diets are consumed less frequently, while the availability and consumption of highly processed foods has increased. Climate change, severe weather events, and changes in farming practices also impact the availability of local, nutritious foods in these areas.

Nutrition during childhood and adolescence can have a significant impact on short and long-term health outcomes. The behaviours that one learns during this time can set the scene for adulthood.
Children who develop behaviours conducive to good health in the early years are more likely to carry these habits into adolescence and adulthood. However, undertaking healthy behaviours usually requires some form of education. Education can take many forms, both formally in an educational setting, and informally, for example in the family home, community setting and in schools.

Children are receptive to education, making this an ideal time to educate them on healthy eating habits and the link between nutrition and health. Formal education for children around the World generally takes place at School. In all regions of the Pacific, children are required to attend school, and while the age of exit from school education may vary, this setting provides a unique opportunity to educate and motivate a sizeable proportion of the community. Schools play a vital role in providing both nutrition education and an environment that supports healthy behaviours (Andrade et al., 2018; Knapp et al., 2018; Hawkes, 2013), with children spending up to six hours a day in the school setting for approximately 9 months of the calendar year (Andrade et al., 2018). The benefits of nutrition education extend further than the students in the classroom. Children and adolescents are well placed to influence their family and community, while teachers, school staff and the wider school community are also impacted by nutrition education. Considering how this education is delivered can also have wider impact on the community through social protection, agricultural development (i.e. gardening), and community wellbeing (McNulty J. 2013).

As requested under Paragraph 61 of the SIDS Accelerated Modalities of Action (SAMOA) Pathway, FAO facilitated the development of a multi-partner Global Action Programme (GAP) on Food Security and Nutrition in Small Island Developing States which was launched in July 2017 at the FAO Conference in Rome, and at a side event during the UN High Level Political Forum on Sustainable Development in New York. The overarching vision of the GAP is the achievement of the right of everyone to access safe, sufficient and nutritious foods, the end of hunger and malnutrition in all its forms, and the sustainable management and utilization of natural resources in SIDS for the benefit of present and future generations. The GAP has three mutually reinforcing objectives, reflecting the primary importance of coordinated actions and partnerships: (i) strengthening the enabling environments for food security and nutrition; (ii) developing sustainable, resilient and nutrition-sensitive food systems; and (iii) empowering people and communities. Under the GAPs third objective of empowering people and communities for food security and nutrition, FAO through its inter-regional initiative with partners have included as a proposed action for this objective the development of a regional school food and
nutrition programme toolkit to support implementation, including links to local agriculture (FAO. SNEP 2017).

FAO is well placed to support the development and implementation of School Nutrition Education Programmes (SNEP) in this region with existing networks, partnerships and an understanding of the environmental challenges facing this area. FAO also provides technical expertise in the areas of agriculture, rural and community development, nutrition and food systems, food security, capacity and equity, and has a food systems approach, all of which are important to SNEP and the local community. Other agencies in the Pacific region, particularly Secretariat of the Pacific Community (SPC) are strategic partners with existing relationships.

The project services contribute to the following Organizational Objective Strategic Objective 1 – Contribute to the eradication of hunger, food insecurity and malnutrition. Outcome 1.3: countries made decisions based on evidence for the eradication of hunger, food insecurity and malnutrition in all forms by 2030. GAP Objective 1.3: Knowledge and evidence.

The aim of this report is to present the findings of the SNEP project and provide recommendations for SNEP in the Pacific region. Countries included in this report are; Cook Islands, Federated States of Micronesia (FSM), Fiji, Kiribati, Marshall Islands (RMI), Nauru, Niue, Palau, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, and Vanuatu.
Chapter 2: Project aim, objectives and outputs

2.1. Aim

The aim of this project is to identify and analyse the capacity for SNEP in 14 Pacific Island countries to inform and propose recommendations for a sustainable regional and local SNEP.

2.2. Objectives

The objectives of this project are to:

- Undertake a scoping review of SNEP,
- Undertake a capacity needs assessment of SNEP,
- Analyse and describe capacity for SNEP, and
- Propose recommendations for SNEP at a local and regional level, across 14 Pacific Island countries

2.3. Outputs

The outputs, based on the project terms of reference (ToR) are:

1. One implementation plan for missions and LoA products
2. A SNEP scoping study in all fourteen countries in the region
3. A SNEP capacity needs assessment per country in the region
4. A SNEP *prototype* methodology and toolkit per country in the region
5. A SNEP *prototype* methodology and toolkit for design and implementation of sustainable Pacific regional SNEP
6. A proposal for a sustainable SNEP intervention per country in the region and as appropriate proposals for Pacific regional SNEP interventions
7. FAO interventions and learning from individual Pacific Country SNEP interventions led by FAO identified and included in the relevant country scoping report and country needs assessment (under outputs 2 and 3 respectively)
8. A final report
2.4. Reports produced

1. Progress report: Scoping review (20 March 2018)
2. Scoping review of SNEP in the Pacific region (30 April 2018)
3. Capacity needs assessment (31 May 2018)
4. Prototype approach for local SNEP and mid-term financial report (29 June 2018)
5. Prototype approach for regional SNEP and proposal for local SNEP (17 August 2018)
6. Participant workshop summary document (14 September 2018 to participants)
7. Final report (30 November 2018)

Other examples of project dissemination are included in Appendix A.
Project aim, objectives and outputs
Chapter 3: Approach

3.1. Design

A dual phase qualitative approach was employed to understand the current need and capacity for SNEP across the Pacific region to develop recommendations for country-specific and region-wide SNEP. Figure 1. Project activities illustrates the process with links to ToR specified activities.

3.1.1. Data collection

A desk review to identify relevant background information and SNEP for each country was undertaken online (Appendix B). Semi-structured interviews with 88 key stakeholders (Appendix C) were conducted to discuss and validate findings of the desk review and undertake the CNA. Interview questions were designed to confirm or amend SNEP details, identify other SNEP which may not have been found in the desk review, explore challenges and solutions, and discuss assessment domains (Enabling environments1, Organisations2 and Individuals3), within the functional capacities of policy, knowledge capacity, partnerships and implementation (Appendix D). Interview questions were developed using the FAO approaches to Capacity development in programming: processes and tools document13, the FAO capacity assessment approach and supporting tools discussion draft (FAO, Capacity Assessment Approach and Supporting Tools Discussion Draft) and Nutrition education needs and capacity analysis package: Tools for an enquiry into country needs and capacity in nutrition education and nutrition education training (FAO, Nutrition education capacity analysis package).

Stakeholders from the Ministry of Health (or equivalent), Ministry of Education (or equivalent) and Ministry of Agriculture (or equivalent) were invited to take part in an interview whenever possible. These stakeholders were identified through contact details provided on their respective websites or through in-country FAO contacts. Other stakeholders invited to participate included local NGO’s, International NGO’s, schools (Principals and Teachers), FAO, WHO, and local not-for profit groups. To...

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1Enabling environments includes; policy and legal framework, political commitment and accountability framework, economic framework and national public budget allocation, governance structure and power, legal, policy and political framework.

2Organisations includes; mandates, motivation and incentive systems, strategic leadership, inter/intra institutional linkages, programme management, multi-stakeholder processes, organisational priorities, processes, systems and procedures, human and financial resources, knowledge and information sharing, and infrastructure.

3Individuals includes; skill levels (technical and managerial skills), competencies, knowledge and attitudes, behaviours and values.
ensure relevant information was collected, stakeholders were required to have an understanding and/or involvement in SNEP in their country. Snowballing was used on each mission to further identify relevant stakeholders, who were then approached and invited to participate in the project.

3.1.2. Data analysis
Data obtained during interviews was transferred to a template and returned to the stakeholder via email for verification. A small number of stakeholders replied with minor edits. The FAO capacity assessment matrix (CAM) summary table (FAO et al, SOFI 2018) was adapted for analysis and synthesis of the findings based on the framework, objectives and questions used for each functional capacity and domain. Qualitative content analysis was undertaken independently by two researchers, followed by discussion to gain consensus on common themes. Common themes were used to inform initial SNEP recommendations. The proposed SNEP recommendations (country specific and regional) were returned to stakeholders via email for feedback. Most respondents replied with confirmation or minor comments on the proposed SNEP. Stakeholders were sent a follow up email approximately one week later if no response was received. At least one stakeholder from each country did not return email summary confirmations, and no responses were recorded from Tuvalu at the date this report was compiled.

3.1.3. Workshop
To further validate SNEP recommendations, stakeholders from each of the 14 countries represented in the project, and Secretariat of the Pacific Community (SPC) were invited to participate in a SNEP workshop held in Nadi, Fiji on the 28th/29th August 2018. Participants representing eight countries, SPC, FAO and University of the Sunshine Coast (USC) attended the workshop with an aim to discuss the proposed regional and country-specific SNEP. The objectives of the workshop were as follows:

- **Day One:** To validate components of the proposed recommendations for regional and local SNEP (Report 5) and discuss barriers and enablers to integration at local and regional levels.
- **Day Two:** To analyse key SNEP stakeholders and establish advocacy and governance requirements for sustaining SNEP into the future.

Workshop participants took part in seven sessions over the two-day workshop (Appendix E). The workshop utilised several approaches to verify the proposed regional and country-specific SNEP. The workshop also involved facilitated discussion of key points identified in the CNA. These approaches
are described in Table 1. *Description of the approaches used in the validation workshop and associated method of analysis.*

Notes were taken throughout each session by a member of the project team and collated with materials (i.e. post-it notes) developed by participants. Summarised discussion notes were verified with workshop participants on both days of the workshop. A summary document was prepared and returned to participants two weeks after the workshop to provide an opportunity to verify the session summaries and to facilitate the collection of further feedback from key stakeholders. This document was also emailed to stakeholders from the countries not represented at the workshop to provide an opportunity for additional feedback. The feedback and information collected during, and after the validation workshop was used to refine the proposed regional and local SNEP.

Table 1: Description of the approaches used in the validation workshop and associated method of analysis.

<table>
<thead>
<tr>
<th>Approach</th>
<th>Description</th>
<th>Analysis method</th>
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<tbody>
<tr>
<td>SWOT analysis</td>
<td>• A SWOT analysis technique was used to identify the perceived strengths, weaknesses, opportunities and threats related to the proposed SNEP</td>
<td>Qualitative content analysis</td>
</tr>
<tr>
<td>Facilitated discussions</td>
<td>• To clarify components of the proposed SNEP*</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td></td>
<td>• To explore governance and advocacy needs</td>
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<td></td>
<td>• To identify and explore issues related to sustainability of proposed SNEP</td>
<td></td>
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<tr>
<td></td>
<td>• To explore intended impact of SNEP</td>
<td></td>
</tr>
<tr>
<td>Stakeholder analysis</td>
<td>• To identify relevant SNEP stakeholders and arrange them according to their interest and influence</td>
<td>Qualitative content analysis</td>
</tr>
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</table>

*At the request of the FAO Subregional Office for the Pacific Islands, a discussion regarding the integration of protein in SNEP was included.*

3.2. Ethical approval

Ethical approval for all data collected was provided by the University of the Sunshine Coast Human Ethics Committee (A18/1054).
Activity 1.1. In partnership with Policy Officer (SAP) prepare an implementation plan outlining implementation arrangements and mission plan and submit to FAO.

Activity 2.1. Conduct a scoping study of existing SNEPs in the Pacific. Initial scoping will be carried out by desk review, followed by a mission to include in-country research, survey, observations and meetings as far as is feasible in each of the 14 countries in the region.

Activity 3.1. Conduct a capacity needs assessment for SNEPs in each country. The capacity needs assessment will be conducted initially by desk review, followed by research, survey, observations and meetings, as far as is feasible, in each of the 14 countries in the region. The missions will be at the same time as the scoping study.

Activity 7.1. Identify FAO funded Pacific Country SNEP interventions, implemented in selected "case study" countries and include these interventions and learnings from the intervention in the relevant country scoping report under Activity 2.1. and considered to inform relevant parts of the capacity needs assessment under Activity 3.1

Activity 3.2. Informed by the results of Output 2 and Activity 3.1, propose a very clear objective that SNEP programme will serve/deliver for each country

Activity 3.3. Provide practical recommendations for supply/source of the nutrition education curriculum material, donor/private sector partnerships, ideas etc.

Activity 4.1. Using the results of Outputs 2 and 3, inform development of a prototype methodology and a toolkit for design and implementation of a sustainable SNEP in each country in the Pacific region.

Activity 5.1. Using the results of Output 2, 3 and 4 inform development of a prototype Pacific SNEP regional methodology and toolkit with the elements needed to design, implement and sustain a SNEP in the 14 Pacific countries.

Activity 5.2. Conduct a workshop to receive feedback and validate and amend where requested by participants the documented Pacific regional methodology and toolkit.

Activity 6.1. Propose a sustainable SNEP intervention for each country that will educate school students on nutrition and healthy food production and preparation with the aim of influencing food choice at an age when life time behaviour habits are developing.

Activity 6.2. In conjunction with Output 5 and in the same workshop conduct sessions and receive feedback and validate the proposed SNEP intervention in a selected PIC in the region and the document amended accordingly.

Activity 8.1. Prepare final report and submit to FAO.
Figure 2. SNEP workshop participants

School Nutrition Education Programmes Workshop, Nadi Fiji, August 2018

Back row: Ms Elay Haulangi (Department of Agriculture, Nauru), Ms Karen Fukofuka (Secretariat of the Pacific Community), Ms Breanna Pasisi Makaia (Department of Agriculture, Niue), Ms Ateca Kama (National Food and Nutrition Centre, Fiji), Ms Karen Tairea (Ministry of Health, Cook Islands), Ms. Fiona Laeta (Department of Education, Solomon Islands), Ms Roslyn Kaising Biagke (Ministry of Health, Vanuatu).

Front row: Mr Darryl Pupi (Ministry of Health, Samoa), Ms Ann Hayman (FAO/NZ), Dr Sarah Burkhart (Project lead, University of the Sunshine Coast), Dr Libby Swanepoel (University of the Sunshine Coast), Ms Breanna Jones (University of the Sunshine Coast), Mr Sevaki Fe’a‘o (TongaHealth, Tonga).
Chapter 4: Results

This chapter summarises the project findings (scoping review [Report 2], CNA [Report 3], and workshop [Report 6]). These findings are discussed in Chapter Five, with recommendations provided in Chapter Six.

4.1. Scoping Review

Qualitative content analysis of meeting summaries revealed three types of SNEP in use in the Pacific region; curriculum (Table 2); gardening (Table 3); and other (i.e. sport-based, school-food) (Table 4).

All countries had a formal education curriculum however nutrition was not explicitly included in two countries. When present, curriculum takes a similar form across all countries with benchmark standards/learning outcomes and strands. Nutrition is often integrated into other subjects such as Health, Physical Education and Technology and are usually optional in the later years of schooling somewhat limiting student’s exposure.

Table 2. Nutrition curriculum status in Pacific Island countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Primary</th>
<th>Secondary</th>
<th>Taught but no formal curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cook Islands</td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Fiji</td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>FSM</td>
<td></td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Kiribati</td>
<td>+</td>
<td>+</td>
<td></td>
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<tr>
<td>Nauru</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Niue</td>
<td>+</td>
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<tr>
<td>Palau</td>
<td>+</td>
<td>+</td>
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<tr>
<td>RMI</td>
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<td>Samoa</td>
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<td>+</td>
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<tr>
<td>Solomon Islands</td>
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<td>+</td>
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<tr>
<td>Tokelau</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Tonga</td>
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<td>+</td>
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<tr>
<td>Tuvalu</td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Vanuatu</td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
<td>11</td>
<td>2</td>
</tr>
</tbody>
</table>

All countries used garden-based activities but with varied and limited curriculum integration (Table 3).
Table 3. Use of gardening activities as SNEP in Pacific Island countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Gardening</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Integrated*</td>
</tr>
<tr>
<td>Cook Islands</td>
<td></td>
</tr>
<tr>
<td>Fiji</td>
<td></td>
</tr>
<tr>
<td>FSM</td>
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<td>Kiribati</td>
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<td>Nauru</td>
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<td>Niue</td>
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<td>RMI</td>
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<td>Solomon Islands</td>
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<td>Tuvalu#</td>
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<tr>
<td>Vanuatu</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
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</tbody>
</table>

*Integrated refers to the activities being integrated into the curriculum for learning activities or experiences.

**No feedback was returned from Tuvalu and evidence of gardening activities was not found in desk review documents. It is possible that gardening activities are used but have not been identified.

Formal sport related activities were used in two countries (Cook Islands: Just Play, an initiative of the Oceania Football Confederation and Tonga: NRL Wellbeing Programme), while school food programs are currently used to varying extent in three countries. The Health Promoting Schools Framework (WHO) is reportedly used in six PI countries (Table 4).

Table 4. Sport related, HPS and school food programmes identified in Pacific Island countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Sport related</th>
<th>Other</th>
<th>Health Promoting Schools (HPS)</th>
<th>School Food Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>All schools</td>
<td>Some schools</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiji</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
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<tr>
<td>FSM</td>
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<tr>
<td>Kiribati</td>
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<td></td>
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</tr>
<tr>
<td>Nauru</td>
<td></td>
<td>+</td>
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<td>Niue</td>
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<tr>
<td>RMI</td>
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<td>+</td>
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<td>Samoa</td>
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<td>Solomon Islands</td>
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<tr>
<td>Tokelau</td>
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<td>+</td>
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<tr>
<td>Tonga</td>
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<td>+</td>
<td></td>
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<tr>
<td>Tuvalu*</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vanuatu</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>2</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

*No feedback was returned from Tuvalu and evidence of other activities was not found in desk review documents. It is possible that other activities are used but have not been identified.
4.2. Capacity for SNEP

The findings of the CNA (Report 3) are summarised based on the assessment domains of policy, knowledge, partnerships and implementation.

4.2.1. Policy

*The capacity to formulate and implement policies and legislation and responsibilities.*

**Formulating and implementing policies**

The capacity to formulate and implement policies and legislation related to SNEP across the Pacific region varies as evidenced by the wide-ranging existence of supportive policy. Nine countries have an overarching National Nutrition Policy and/or NCD strategy, however, while these may be present, they vary in content and direction and for example, may not reference schools as a setting. Eight countries have a current overarching School Nutrition related policy; however, these also vary in direction (i.e. canteen guidelines vs vendors outside school grounds). In some countries without formalised policy there are directives or mandates for activities, for example, in the Republic of Marshall Islands (RMI) the Public School System (PSS) directs that all schools are to have a garden, while in the Federated States of Micronesia (FSM) schools must consider school food as part of the accreditation process. Stakeholders reported that it appeared that all levels of Government understood the importance of nutrition, particularly for youth, but this had not always been translated into directed policy. Stakeholders also noted that lack of policy, or the ability to enforce existing policy, impacts on the use and success of SNEP.

**Responsibility for policy**

National policy development is reportedly the role of the National Government and associated Ministries, sometimes with the support of external consultants (i.e. FAO). At a school level, responsibility for a nationwide school policy may be with the Education and/or Health sector. In countries without a Nationwide policy, schools report developing their own policy, sometimes with the support with the MoH (or similar), or at times with very little direction. Stakeholders in these countries noted that when schools are responsible for developing policy, teachers and school staff require assistance to undertake this process.
4.2.2. Knowledge

The capacity to access, generate, manage or exchange relevant knowledge and adapt it to local systems.

There is limited capacity to access, generate, manage or exchange relevant knowledge and adapt it to local systems across the Pacific region as evidenced through limited access to appropriate and credible learning and teaching resources and varying integration of nutrition in the curriculum.

Capacity to access, manage and exchange relevant knowledge

Somewhat limited access to nutrition information was identified. In general, stakeholders reported sourcing and using nutrition information from both credible, evidence-based sources, and those which may be of questionable credibility and quality (for example YouTube). Credible sources reported across the region included SPC, NGO’s (i.e. World Vision, Island Food Community of Pohnpei in FSM - and Grow Green Eat Green in Solomon Islands), WHO and the Pacific Science for Health Literacy Project (PSHLP), however most countries relied on staff based at the local MoH (or similar) to provide nutrition information. Some of these local MoH staff reported using information from SPC and WHO, but also relied on other information sources (i.e. overseas websites) to develop resources.

Most MoH (or similar) are fortunate to have the services of a trained Nutritionist, often a local who understands the unique circumstances of the local culture and food system. However, not all countries have access to a trained nutrition professional within the MoH (or equivalent), and therefore may rely on assistance from nutritionists or dietitians who work with local NGO’s or groups. Even when trained Nutritionists are available, there is an overall lack of nutrition workforce capacity. Nutrition stakeholders reported being active in several work areas, including other areas of health, and that there was scope for an increased nutrition workforce.

Educators reported using out of date textbooks and material not relevant to the local food supply. At the time of this project, the Pacific Island Dietary Guidelines were being updated (led by SPC), however some stakeholders noted that the prior guidelines being used were not suitable for the local food supply (i.e. promoting the consumption of foods that are not available on the Island). Individuals across all the countries where interviews took place in person identified that educators require more teaching resources.
In Fiji, the National Food and Nutrition Centre (NFNC) has an in-house Resource Centre that develops, pilots and provides access to resources, but as with all other countries are limited by staffing and the time available to devote to resource development. FAO and FAO consultants have played a significant role in providing knowledge through previous projects undertaken, however some stakeholders reported challenges in sustaining the transfer of knowledge when consultants changed.

The cost of resources is a major concern in the Pacific region. Many countries do not have facilities to print resources, consequently these are sent offshore with a significant associated cost. Those countries that do have access to printing also noted the cost of producing resources, limiting the use of these.

While stakeholders were aware of some of the SNEP practices being undertaken across the region, it is difficult to share and exchange relevant knowledge due to geographical location, cost and technology (i.e. lack of online access or slow download speeds). Some stakeholders reported attending the recent SPC Pacific Diets workshop in Fiji (late 2017) and acknowledged the benefits of this event to share and exchange information. Stakeholders from seven countries referred to a lack of opportunities to upskill, for both teachers and other stakeholders (i.e. Nutritionists and Agriculturalists).

Parents and the local community were acknowledged, but not always explicitly used, as a source of knowledge. An example of use is evidenced by Niue where individuals are asked to come into the classroom and share their individual experiences of health. It was reported that this is well received by students.

*Capacity to generate knowledge*

There is limited capacity to generate new knowledge, particularly from a research perspective. This is likely due to a lack of time and limited resourcing. Stakeholders reported ‘wearing many hats’ and that extra activities, outside of normal duties, were unlikely to be completed due to a lack of time. Geographical location, travel and access to equipment also limited generation of new knowledge. There is however a desire to generate new knowledge that could be shared locally, and regionally.
*Capacity to adapt relevant knowledge*

Educators also expressed a lack of ability and confidence to translate food and nutrition activities, i.e. gardening activities into the current curriculum. Educators also identified a lack of food and nutrition knowledge, limiting their ability to adapt resources. Some countries already adapt foreign curriculum and resources (i.e. Niue adapts and contextualizes the New Zealand curriculum) but note the challenges of doing this include having time and staff to undertake translation.

**4.2.3. Partnering**

*The capacity to connect, to advocate and engage in networks, alliances and partnerships, including linkages with community (parents/church).*

While motivation exists, there are limited opportunities for stakeholders to connect, advocate and engage in networks, alliances and partnerships, particularly at a regional level.

*Capacity to connect, to advocate and engage in networks at a local level*

All countries identified that local partnerships exist, sometimes formalized with a Memorandum of Understanding (MoU), however the use of a MoU was not seen broadly across the Pacific region. A MoU, when used, is often between two sectors, i.e. Health and Agriculture, with Education not currently involved. Stakeholders identified that this is an issue, and in some countries are progressing towards a MoU between all three sectors.

It was noted that it was difficult for larger multisector groups to understand priorities and activities, and stakeholders across some countries felt there could be better use of resources and advocacy if better communication of current and planned activities occurred. Countries with a HPS Committee noted the advantages of this committee, and often felt that this group, along with the HPS Coordinator (where available), linked stakeholders and provided a solid platform for multisectoral advocacy and sharing of activities.

Methods used to share/collaborate locally include; informal networks (i.e. Informal Cook Islands example), phone, email, face-to-face meetings and letters/mail. Technology (email/phone) was again cited as a challenge to communication, particularly with remote islands.
Other local partners identified were church groups, who were viewed as an integral component of sharing information, but not necessarily included in SNEP, parents and other NGO’s.

_CAPACITY to connect, to advocate and engage in networks regionally_
Most countries had a formal link with SPC and all with FAO, but no other formal nutrition education regional networks. Stakeholders from countries (those interviewed in person) expressed a desire to be part of a regional network, recognizing that activities and resources could be shared more broadly. A small number of stakeholders had participated in the well-received regional networking event organized and hosted by SPC (Pacific Diets), but recognised that this was only for Nutritionists, not those from the education and agriculture sectors. No other formal networks were identified.

Methods of regional communication include email, virtual meetings (i.e. using Skype), telephone, letters and face-to-face meetings, however the limitations of technology, geographical distance (increasing travel time and cost) were noted.

4.2.4. Implementation
The capacity to manage and implement programmes from planning to monitoring and evaluation.

_Responsibility for implementation, access to infrastructure (facilities, resources) and aspects of the wider environment that may impact on use and success of SNEP._

_CAPACITY to manage and implement programmes_
While several SNEP were identified (Tables 2 – 5), stakeholders report limited capacity to manage and implement programmes from planning to monitoring and evaluation in the Pacific region, due to a lack of defined responsibility, access to infrastructure (facilities, resources) and aspects of the wider environment.

Current monitoring and evaluation activities include; health recording/growth monitoring, school health checks, participation in the Global School Health Survey (GSHS) and STEPS, educators checking lunchboxes, MoH/MoE staff checking compliance of school vendors and canteens, and gardens/fruit trees. Stakeholders reported that while these activities were undertaken, this was to varying extent due to capacity, but that they would like to be able to do more monitoring and evaluation.
Results

Responsibility for implementation, monitoring and evaluation

There is a general lack of defined responsibility for implementation and ongoing support of SNEP. Generally, it was acknowledged that responsibility ultimately resides with schools; Principals, Teachers and the Parent Teacher Association (PTA), however many organisations (i.e. MoH, MoA and MoE and NGO’s) currently provide support for implementation, monitoring and evaluation wherever possible, even with limited staff capacity and resources.

Access to infrastructure (facilities, resources)

Geographical location was identified as a challenge for implementation, monitoring and evaluation by stakeholders in six countries, with travelling and communication to outer islands cited as expensive, resource intensive and time consuming.

Funding conditions were cited by stakeholders from three countries as a challenge to implementation. These included a lack of funding flexibility, the time it can take for funding to be made available, and that activities are often grant driven which can make planning difficult. Human resources were also identified, with the current workforce already having an extensive workload.

Aspects of the wider environment that may impact on use and success of SNEP

Stakeholders in four countries identified that there was limited space available for gardening activities, impacting on the ability to teach practical agriculture/food production lessons. Limited kitchen/cooking facilities (i.e. kitchen equipment) was also identified as an aspect that may impact on the use and success of SNEP. Majority of stakeholders identified that there was a desire to link gardening and cooking/food preparation, however as there are very limited facilities to do this, it occurs very infrequently. Even when facilities are available, there are often old, and in poor condition.

Stakeholders from six countries reported that the local food environment, for example the availability of local foods as compared to imported, highly processed foods made SNEP more difficult to implement, and challenged the success of these.
4.3. Workshop findings

Workshop findings are presented as follows; strengths and challenges of proposed recommendations for SNEP (regional stakeholder group, supporting learning and teaching), impact and motivation for SNEP, and the role of protein in SNEP.

4.3.1. Strengths and challenges: Feedback on proposed SNEP recommendations

Recommendations for a Regional SNEP

Feedback on a proposed regional network (Reports 4 and 5) included;

Strengths

Key strengths of a formal regional network were identified by workshop stakeholders as:

- providing an opportunity to develop, build on, and strengthen existing committees, networks, relationships and synergies, and for champions to share a common vision and support advocacy
- a platform to advocate for development, implementation and monitoring of policy to support healthier school and community environments, and for SNEP to be prioritised
- an opportunity to learn from, and collaborate with others (best practice), share resources and work with a multisectoral approach, keeping environmental issues such as climate change in mind
- a platform for sharing of current work, e.g. what NGO’s are doing and how this could link with existing or planned projects

Challenges

Several key challenges to a sustainable formal regional network were identified by workshop participants, including responsibility, communication, and workforce/membership.

Responsibility

Workshop participants:

- Raised and discussed who would be responsible for leading this network, and sourcing funding to support this?
- Suggested situating the SNEP network within one of several other networks including HPS, Ending Childhood Obesity (ECHO) or SPC.
• Identified SPC as a logical leader because they have existing representation from, and relationships with stakeholders in the areas of nutrition, agriculture and education. SPC also has an education division who oversee assessment and curriculum design across the Pacific region.

• Proposed that a partnership between FAO and SPC could be a successful avenue for shared responsibility (i.e. the development and agricultural side could be driven by FAO) with benefits of a shared responsibility including greater opportunity to pool resources and not having to rely on one organisation.

• Noted that WHO has an existing relationship with SPC and share similar priorities.

• Suggested Pacific ECHO as a potential setting for the network given the focus of this group on childhood obesity.

Communication

Workshop participants:

• Discussed that communication both within countries, and across the Pacific region can be challenging due to technology and remoteness/geographical location.

• Suggested establishing or using existing networks in each country, and then sharing contacts between the region.

• Suggested a driving body or leader, who is ultimately responsible for sharing information within networks (ideally by email) be appointed.

• Wanted to consider diverse ways of sharing information.

• Suggested formal communication through the ECHO network.

• Suggested informal communication through social media, national food and nutrition website(s) and a SNEP online presence.

• Suggested that a regional network for HPS as an alternate avenue for communication.

Workforce/Membership of a wider SNEP group

Workshop participants discussed the importance of a SNEP regional network that supports membership of a multisector group. One workshop participant noted; ‘We also need to have more representation from MoE [Ministry of Education] in our (MoH/HPS) [Ministry of Health/Health
Promoting Schools committee so that they can see how to include nutrition in the curriculum. Participants however identified the complexities of this as:

- Nutrition is often not seen as a priority, and that often there is something more urgent to be attended to. One participant framed this as; ‘nutrition is silent, subtle and long term, it’s not acute like a tooth ache. You don’t feel and see it, so this makes it difficult to invest in nutrition because there aren’t tangible signs and symptoms’.
- Some stakeholders may be in transient roles; however, this was also identified as a potential opportunity.

Feedback on proposed supporting learning and teaching recommendations included;

Benefits

Workshop participants identified the key benefits of the learning and teaching kit (L&T kit) (Reports 4 and 5) to include;

- Existing tools could be used within this recommendation.
- An opportunity to develop and share recipe books and resources (i.e. Solomon Islands has an agriculture curriculum that may be suitable for adaption in other countries).
- A generic tool that could be adopted and adapted would be very useful as teachers often express they do not have the time, knowledge or confidence required to develop these materials.
- The L&T kit provides starting point to pick up and contextualise resources with the local food, customs, culture and environment in mind.

Workshop participants also reported assessment drives learning, so suggested the L&T kit should be focused on student assignments and projects on nutrition-related topics. Participants discussed that there is an assumption that teachers only teach according to what is assessed in the national exams, so assessment of nutrition related topics is required for it to be taught, and for students to see the importance of the topic.

Challenges

Responsibility

As with the proposed SNEP regional network, responsibility for both the development of the generic L&T kit, as well as contextualization at a local level were both discussed in depth as a key challenge by
workshop participants. While workshop participants recognised that baseline resources should be included in the learning and teaching kit (i.e. competencies/benchmarks), a local curriculum needs assessment to be undertaken for each country to identify curriculum gaps and align with relevant resources to address this was suggested. Participants noted that a multisectoral approach was essential for this to work well, suggesting that Education should provide a lead person/team for driving the contextualising of the resources, and ensuring that these are used as intended. Participants suggested a partnership with academia to promote sharing of resources and expertise and noted this partnership could additionally assist with periodical review and follow up.

Curriculum review tool

A tool which may be useful for a curriculum review process is the *Nutrition Education in Primary Schools (FAO Nutrition in Primary Schools: A Planning Guide for Curriculum Development)* document. Feedback on this tool from workshop participants included both benefits and barriers to use:

Benefits

Workshop participants discussed the use of this tool noting that this developed tool was likely to be useful for curriculum review/redesign in their country as it was comprehensive, could be used for professional development for teachers, and would assist with the identification of gaps in the curriculum and supporting resources. The tool could also be used assist to take an integrated curriculum approach, i.e. nutrition as a cross cutting topic.

Barriers

Barriers identified to the use of this tool by the participants included;

- The tool is developed for primary, not secondary level.
- Teachers would need to prioritise the use of the tool and would need support to undertake this review process.
- Resources such as expertise from Education, and technical knowledge of Nutrition and Agriculture are required.
- Funding is required to reach outer islands and for translation of resources.
- The local country Curriculum unit, or similar, needs to show leadership and support in use of the tool, and make nutrition a priority.
- Staffing can be inconsistent so developing consistency and sustaining partnerships may be challenging.
Adapting curriculum
While curriculum design principles need to be of utmost importance, workshop participants viewed adapting nutrition, and nutrition related curriculum (i.e. agriculture) from existing Australian and New Zealand (for Melanesia/Polynesia) and USA (for Micronesia) education materials as an efficient way to work from developed resources, adapting where necessary.

Workforce capacity
One of the CNA findings that was discussed in depth at the workshop was that of workforce capacity. Ideas proposed and considerations by workshop participants to develop workforce capacity included;

- **Secondments**
- Incorporating nutrition education into teacher training so that teachers come into the vocation having the ability to teach this topic, rather than relying in service/upskilling. An example of this was provided by the Solomon Islands representative; After the Solomon Islands (SI) Cabinet mandated a new health curriculum be developed for Year 7-9, it was identified that no teachers were at that time were trained to teach the subject. This has been addressed through the integration of a HPS module into teacher training (started 2018).
- Incorporate a tool into the regular professional development (PD) for teachers to support teaching in the classroom and appoint a coordinator whose role is continual professional development of teachers.
- Provide professional development opportunities for nutritionists/agriculturalists so that they know and understand the education context.

Considerations outlined by participants included;

- Teacher upskilling and in-service training does not always work as teachers often move to another school or country, although this was acknowledged as a benefit to the new location.
- Teacher training colleges are in the larger, but not in smaller countries such as Cook Islands, Tuvalu, Tokelau, Kiribati, and Niue possibly restricting access to training in these areas.
4.3.2. Intended impact

Workshop participants were asked to report and discuss what they believed impact of a SNEP would include in their country. Workshop participants described the intended impact of a proposed SNEP in their countries across various levels.

At a National level impact was described as;

- improved partnerships and intersectoral collaboration (as measured with roles, networks and contributions)
- strategic alignment of SNEP with Ministry visions and strategic plans
- decreased rates of non-communicable disease

At a community level impact was identified as;

- translating resources to community-based programmes to empower children and youth to make healthy choices and improve food safety
- increased parent support (measured with Parent and Teacher Association minutes and agenda, document analysis)

In the school setting, impact was identified as;

- strengthening current curriculum
- providing school meals (measured with audits)
- increased access to school gardens (measured with audits)
- improved compliance with nutrition guidelines
- embedding themes of food systems, social justice, social enterprise and climate change in the curriculum

At an individual level, impact was identified as;

- improved nutritional status (measured via anthropometry/nutrition assessment)
- a decrease in NCD’s

Participants also indicated that children are ideally positioned to act as agents of change.

4.3.3. Motivation for SNEP

Session 7 provided workshop participants with an opportunity to reflect on how they feel about SNEP in the Pacific region. These reflections included;

- ‘Immense’ potential
• An opportunity to bring agriculture into the curriculum and link to environmental issues
• ‘There are lots of challenges, but it’s important to focus on the positives and move forward, otherwise the challenges will hold us back. We have lots of potential and strengths so let’s use these to move forward’
• ‘I see a real need to strengthen our authority to promote healthy meals and snacks, and guidelines for school canteens would be good’.
• ‘We have great potential in the Pacific. NCD is a very big problem here, and this is a crisis in all islands. But nutrition doesn’t take up much of the voice – NCDs speak loudly but nutrition is not heard. So, I see we have great potential. We have just started off and I’m happy that it’s initiated, and the idea is coming, once we send the proposal I know we will have great support to carry this out’
• ‘It was great to learn from other great colleagues regarding their education, especially S.I., the structure they use, and their school policy. Because we only have the school food policy and there is nothing to connect to curriculum - this is one area that we can focus on’
• ‘I come back to the message of planting cabbages on the blackboard: seeing and remembering is one thing, but until you do the physical activity you won’t learn. So now it’s my job to take this learning back and knock on doors and get the practical happening. Through the stakeholder analysis, I have identified other stakeholders to link with for value-adding opportunities’
• ‘This meeting has been a network to collaborate and share and hear the stories from each country. Hearing enthusiasm from people here reinforces that I want this to continue to the next phase’

4.3.4. The role of protein in SNEP
A focused workshop discussion at the request of FAO centred on the inclusion of protein in SNEP. The general focus of SNEP, particularly in the Pacific region where gardening is popular, is usually on fruits and vegetables. While these foods are important components of a healthy diet, considering how protein foods can be incorporated into SNEP is also warranted. Workshop participants saw protein in SNEP as muscle and meat, body building foods, beans, legumes, nuts, and seafood. Suggestions and considerations for inclusion included;
• Initiatives for technical/vocational/boarding schools (e.g. poultry farms, fish and prawn farms)
• Some schools need to feed children, therefore there could be an explicit link to school food
• Chicken farms are common (e.g. agriculture program, manure can be used on a garden)
• Maritime schools. Fish farming and aquaculture, prawns – need water access, could utilise marine protected areas to for learning about fish and sea vegetables, sea gardens. Need to link with fisheries and businesses.
• Enterprise education (e.g. fruit trees, fish farms, vegetable plots) – ‘it’s ambitious but can be done with support and partnerships’
• Integrated garden – include chicken/goat
• Would like to build on the current integration of fruit and vegetables and protein focus
• Requires supervision of students

*Workshop participants discuss the SWOT analysis*
Chapter 5: Discussion

This chapter discusses the findings of the SNEP project.

Overall status of SNEP

There is a high level motivation and several SNEP currently in place in the Pacific region. The stakeholders consulted are champions for SNEP, having played a significant role in developing and implementing these, often with limited resourcing. There is recognition of the benefits of SNEP, however, there are many challenges to designing, implementing and evaluating SNEP in this region. Capacity for SNEP in the Pacific region is currently limited in all three domains; enabling environments, organisations and individuals, however the success of current SNEP suggest that these can be successful, if supported appropriately. Based on the findings of this project, mechanisms to support the development and delivery of new, and continuation of current SNEP are proposed throughout this discussion.

There are several potential outcomes from SNEP at both the individual, and population level. It is recognised that nutrition status impacts on both school attendance and school achievement (Mosley et al., 1990.), which ultimately impacts on personal development, and contribution to society. Workshop participants identified the impact of SNEP at several levels from National to Individual suggesting that SNEP could result in several positive outcomes for local communities and countries.

Given the prevalence of NCD and related health issues being seen in low-to-middle income countries, Governments, the private sector and civil society have been prompted to raise awareness of consumer attitudes, skills and behaviour related to food, diet and nutrition. These actions have consequently become the process of ‘nutrition education’. Practical approaches to school nutrition education used in other regions around the World include the use of directed nutrition curriculum, and practical activities such as gardening and food preparation. Nutrition education in the broadest sense provides learners with information/knowledge through communication, skill development, and an enabling and supportive environment (Hawkes C. 2013)( McNulty J. 2013).

Providing knowledge and developing skills

One of the most recognised and utilised forms of knowledge transfer and skill development in schools is through nutrition curriculum. Nutrition curriculum usually takes the form of defined benchmarks or
learning outcomes, from which teachers design and deliver learning activities and assessment. Nutrition curriculum can be used to direct and support learning but relies on appropriate knowledge, especially for the teachers who are designing learning activities to align with the provided curriculum.

Curriculum design was highlighted as a key issue in this region. While a nutrition curriculum was present in majority of countries, teachers are usually responsible for developing and delivering learning activities that align with Ministry provided benchmarks or learning outcomes. Many stakeholders from the Education sector reported that they did not know how to effectively integrate nutrition into the curriculum through alignment with benchmarks/learning outcomes, particularly regarding the design of learning activities. Given that nutrition is often seen as a sub-topic of science, health or physical education, this likely makes the curriculum integration process even more challenging.

It is evident that the Education sector across the Pacific region recognises the importance of nutrition, however current teaching capacity in this area appears low. Teachers reported an ardent desire to incorporate nutrition into the curriculum, however noted that they were not sure how to do this, or where to source assistance. Stakeholders from most countries reported requiring assistance to develop contextualised learning materials, and difficulty sourcing credible information for teaching. Steps that may assist teachers to bridge this gap between understanding the benchmark and designing appropriate activities and assessment could include curriculum review and redesign, and development of learning and teaching (L&T) resources that support the development and delivery of engaging and relevant learning experiences.

Curriculum review and redesign (where required), would be useful for all countries. Undertaking curriculum review and redesign is a significant task which requires individuals with expertise in education to be supported with technical assistance (i.e. from nutrition and agriculture). Community involvement has also been shown to assist with successful curriculum design (FAO. Nutrition in Primary Schools: A Planning Guide for Curriculum Development), but most stakeholders noted that they did not have a process to undertake nutrition curriculum review to facilitate this. A curriculum review tool; FAO Nutrition Education in Primary Schools: A planning guide for curriculum development, was considered and discussed at the SNEP workshop. Participants noted that the tool was a likely useful addition to provide a process for curriculum review and redesign. The tool is aimed at Primary
school level, however the process could be adapted for Secondary school level and used in conjunction with the FAO School Capacity Needs Assessment tool (FAO. Nutrition education needs and capacity analysis package).

Enhanced access to learning and teaching (L&T) resources can also support teachers to develop and deliver engaging and relevant learning experiences for students. Stakeholders expressed a view that students were currently exposed to theory but not sufficient experiential learning opportunities. One workshop participant summarised this as ‘teachers plant cabbage on the Blackboard, not in the soil’.

Experiential learning approaches that combine activities both in and outside the classroom can positively influence children’s nutrition learning (Parmer SM et al, 2009). One of the most popular practical activities in this region is gardening. Garden-based nutrition education can play a key role in educating students about food, nutrition and agriculture. Students can learn to grow, tend, harvest and prepare nutritious meals in a school setting through involvement in a school garden. These types of activities can result in increased nutrition knowledge and positive environmental changes for children by learning about produce and actively consuming what has been harvested. For example, The Vegetables Go To School program, multi-intervention packages incorporating agriculture, nutrition and WASH (water, sanitation and hygiene) education, and community outreach to improve community food security and nutrition (Yang R et al, 2017) have been implemented in Burkina Faso, Indonesia, Bhutan, Nepal and the Philippines. Results from this program have shown a significant increase in agriculture, nutrition and WASH knowledge, awareness of fruits and vegetables, healthier food preferences and increased vegetable consumption (Yang, et al) (Bhattarai. et al.) (Schreinemachers, 2017).(Schreinemacher et al, 2017). (Schreinemachers et el, 2017). This suggests that gardening activities can have significant impact, if they are integrated into the curriculum successfully.

Food preparation (i.e. cooking) activities can also assist with knowledge transfer and developing nutrition skills and confidence. There is a desire to provide these types of activities to students through integration in the curriculum, however limited facilities restrict the opportunity for students to take part in gardening and food preparation activities. Several countries appear to have very little space for a garden, a lack of access to garden tools, as well as kitchen/cooking facilities. Some countries have developed innovative ways to get around these challenges, with other forms of gardening (e.g. container gardening in the Cook Islands) used. Hydroponics have been discussed for use in at least
two countries, however cost and lack of expertise has delayed the implementation and use of these systems. It would be useful to undertake a needs-assessment of gardening and/or food preparation facilities to identify the extent of need for resourcing. Teachers are also unsure of how to integrate these activities into the curriculum, suggesting that improved resources would assist with this.

**Teaching and learning resources**

While curriculum exists in varied forms, stakeholders reported a lack of resources to support teaching. For example, there are no current nutrition textbooks that are Pacific focused, teachers use ad-hoc resources (which may be out of date) and rely on online resources (which may not be credible, and evidence based) to supplement development and delivery of learning activities. Educators often rely on resources from other countries (i.e. American, Australian or New Zealand textbooks/online resources), however these do not match the local food environment, creating a disconnect between what is taught, and what occurs for students.

Development of a generic learning and teaching (L&T) kit could assist educators with developing learning activities and provide access to appropriate resources. Stakeholders were positive about the proposition of a developed Pacific region L&T kit that could then be contextualized by a local group, viewing this as an opportunity to assist already busy teachers to have access to appropriate resources. This process could incorporate the resources that are currently in use and assist with bridging the gap between curriculum benchmarks/learning outcomes and learning activities and assessment.

To ensure good practice the development of curriculum and the L&T kit needs to be guided by sound pedagogical principles including; building on existing knowledge, experiential activities, explicit links to assessment, memorable experiences, interaction/peer learning, self-responsibility and activities that are appropriate for culture, age, gender (FAO. Consultation Report). The development of a generic L&T kit is a substantial undertaking, however there are already several resources developed and in use. A scoping study of curriculum materials (i.e. activity planners for Science subjects) used in all 14 countries could be undertaken to collate existing resources and to identify what requires development for incorporation in the L&T kit.

It appears that there is some capacity to adapt relevant knowledge to local systems, suggesting that a generic L&T kit could be successful. Explicit reference to the adaptation of knowledge was noted in some countries, while others were doing this without being explicit. Adopting relevant knowledge to
a local system requires skills with workshop participants expressing some concern of workforce capacity, and the time required to undertake the contextualisation.

**Workforce capacity**

Providing knowledge and skills in the form of SNEP relies on a capable and skilled workforce. The SNEP workforce spans several sectors and roles. In the Health sector, Nutritionists play a key role in providing advice on the relationship between diet and health. Those in the Education sector play an integral role in developing and delivering educational experiences to students and the wider community, while those in the Agricultural sector have an in-depth knowledge and understanding of agriculture including requirements for gardening, as well as primary production and processing. As noted previously the nutrition workforce capacity is limited across the Pacific region, with some countries relying on one nutritionist as a source of information and for assistance while opportunities to upskill for all sectors are currently limited.

Teachers noted a lack of confidence in integrating and teaching nutrition. This could be improved through increased training opportunities, particularly within pre- and in-service teacher training. A series of training opportunities was discussed with workshop participants, with positive feedback on suggestions for formal and informal training/qualifications.

A formal qualification for teachers and other interested parties, i.e. a diploma or recognised short course in food, nutrition and health could be developed and provided by a partnership of a Pacific based University or tertiary provider and an Australian/New Zealand based University or tertiary provider already delivering a nutrition qualification. The inclusion of a local University or provider would ensure that the cultural aspects of the content, and application of this in the local setting are addressed, while an external University or provider could assist with existing frameworks, materials and resourcing. To accommodate stakeholders from diverse geographical locations, formal training modules could be designed to be provided as a blended learning experience (i.e. a combination of online and in-classroom activities).
Stakeholders who may not be interested, or unable to commit to a formal training opportunity could be provided with an opportunity to undertake informal training. An informal training module for teachers with a focus on basic nutrition knowledge, basic nutrition skills including food safety and food preparation, gardening and simple tips for teaching food and nutrition (integrating the SNEP L&T kit as appropriate) could be developed (alongside a formal qualification to best make use of resources). As parents/caregivers and community members are an integral component of a successful SNEP, this group could also access this training module. As a developed tool it would also have potential to be used for professional development for not only teachers, but nutritionists, agriculturalists and any interested members of the community. These modules could be modelled on the FAO ENACT and ENAF tools (FAO, ENACT).

**Collaborating and sharing best practice**

Throughout the project stakeholders have expressed a desire to learn from others and recognised the work being undertaken across the Pacific region. There are very few formal SNEP partnerships across countries in the Pacific, most likely related to cost, geographical location and leadership. Stakeholders across all countries identified that greater emphasis on formal partnerships could strengthen SNEP both locally, and regionally.

*Local collaboration*

Informal local partnerships exist, often with ongoing success. An example of this is the informal network of the Cook Islands. A group of stakeholders (from Agriculture, Health/Nutrition, Education, NGO’s and any others who are interested) meet regularly to discuss current and upcoming activities. These stakeholders invite appropriate contacts to meetings to share experiences and reflect on activities. While this is an example of informal partnering, those in countries without a network may find that a formalised process assists stakeholders to develop a similar network.

As each of the countries included in this report has a unique Governance structure and culture, it has been recommended that a country SNEP taskforce is developed to foster engagement and collaboration. To be successful, a country SNEP taskforce will likely require representation from a variety of sectors and could be made up of; **Local members** (local stakeholders), likely Lead/Head Nutritionist (MoH or similar), representatives from; MoE, MoA (or equivalent), local NGO’s, FAO, WHO (ideally HPS background), and community leaders, if relevant* (*a high-profile advocate for SNEP, for example, a well-respected Sportsperson may be a valuable member of the taskforce to increase
awareness). The local members ensure ownership and that the SNEP and related activities are culturally appropriate (i.e. focus on local foods and cultural behaviours). The consultant members could include academics with expertise in the context of the Pacific in the following areas; human nutrition/food systems, agriculture/horticulture, education/curriculum and policy. A consultant group can provide expertise that may not otherwise be available to the country (i.e. curriculum review and renewal, nutrition), however require experience in the Pacific setting. Consultant members can also provide sustainability in knowledge and partnerships which has previously been highlighted as a challenge in this region.

A country SNEP taskforce could work collaboratively to; consider and document the institutionalisation of the country SNEP, address specific recommendations for country SNEP, and oversee and facilitate the curriculum review/redesign process and contextualization of the L&T kit, (as appropriate in the country recommendations - Appendix F). It is also suggested that the country SNEP taskforce review policies that relate to the school environment (i.e. curriculum, school gardens) and advocate for policy change when required to assist with developing a more supportive school food environment. The country SNEP taskforce could also provide representation on the governing committee of the SNEP stakeholder network (outlined below).

The capacity to generate relevant knowledge is somewhat limited in the region, and likely due to research training and capability. However, even when stakeholders can undertake research, competing priorities often limit the generation of new knowledge. FAO consultants can assist with the generation of relevant knowledge, but these individuals are not always working with a research frame in mind. Many stakeholders acknowledged the assistance of FAO and FAO consultants in access relevant knowledge, however a lack of consistency in relationships was noted as making it more difficult to sustain this transfer of knowledge. Consultant members of the country SNEP taskforce could assist with developing research capacity, where appropriate.

**Regional collaboration**

While there have been several opportunities for collaboration of nutrition related professionals across the Pacific region, and there is high motivation for SNEP, the establishment of a formal SNEP network was proposed to foster collaboration and provide support for wider group of SNEP stakeholders (i.e. Nutritionists, Teachers, Agriculturalists). Workshop participants described this recommendation
positively, although acknowledged the challenges that would be faced in implementing and sustaining this type of activity.

A regional SNEP stakeholder network could provide an avenue to share, collaborate and acknowledge good practice, as well as advocate for improved policy and support for SNEP and the school environment (i.e. school food). To assist with knowledge transfer and exchange, the regional SNEP stakeholder network could be led by a committee comprising of one country SNEP taskforce member from each member country to ensure all views are represented, and to assist with communication. Additionally, funding could be sourced to provide an opportunity for stakeholders to attend an annual conference to present and discuss SNEP, and to network. This could be a standalone event, or incorporated with another Regional FAO event, or related conference i.e. Nutrition Society of Australia, New Zealand Nutrition Foundation, World Public Health Nutrition Association. Ideas for increasing SNEP awareness included the promotion of a SNEP awareness day annually and this could be led by the regional SNEP stakeholder group.

Stakeholders expressed a desire to support a regional network with an online platform (website). The FAO Global Forum on Food Security and Nutrition “FSN Forum” is an online platform for multi-stakeholder dialogue on food security facilitated by FAO’s Agricultural Development Economics Division (ESA). This FSN forum allows registered members and other stakeholders to engage in policy dialogue and knowledge sharing on food security and nutrition both globally and in targeted geographic areas (taken from the FSN forum website - http://www.fao.org/fsnforum/resources). This framework could be adapted to develop a Regional (Pacific or Asia/Pacific) forum on School Food and Nutrition Education.

An enabling and supportive environment
Stakeholders in this project identified the SNEP were more likely to be successful with a more supportive environment in the region. Interventions that include a range of educational activities in conjunction with changes to the food environment can be an effective way to educate students and encourage positive dietary change. These interventions tend to be more successful as they address both awareness of behaviour(s) and create a more supportive environment in which to undertake this behaviour (Hawkes C. 2013).
The ToR for this project considers SNEP to be an intervention to educate school students on nutrition and food preparation with the aim of influencing healthy nutrition choice and practice at an age when lifetime behaviour habits are developing and in the wider community (FAO, SNEP). With this definition in mind, stakeholders expressed a need to understand the link between the school food environment and potential success of SNEP, highlighting key challenges of policy and availability.

There are various levels of policy and support for SNEP within the Pacific region. Few countries have policy at national and school level to support SNEP. Several countries do not have an overarching Food and Nutrition policy, nor a School Related Food and/or Nutrition policy, while some have an NCD strategy that may refer to the school setting. In some countries Schools report developing their own policies, with little support or direction.

The school food environment also includes food provided on, or near school grounds (e.g. canteens and street vendors). Policy can support schools and communities to create an environment that supports education and healthy behaviours (Hawkes C. 2013), for example ensuring the food that is available supports the knowledge and behaviours taught in school. Some countries already have policy in place to restrict or promote some foods on, or near school grounds, or are in the process of developing this policy. In countries that have existing policy there was feedback that this is not always enforced, often due to parental concerns or pressure, or because there was an acknowledgement that it was better to allow students to eat something, as opposed to taking away food and the student having nothing to consume.

While policy can support a healthy school environment, limited availability of healthy food options adds to this complexity. Some countries do not produce an abundant supply of assorted items due to limited space, the climate, and soil quality, and therefore have a reliance on more highly processed, imported foods. School food may be an avenue to improve access and availability of healthier foods through school food programmes, school gardens or other production systems.

Nutrition education can be aligned with school food programmes. Currently only a small number of countries in the Pacific have school food initiatives. There is however a desire to investigate options for the integration of school food with nutrition curriculum and to enhance the school food environment. One discussion at the SNEP workshop centred on protein (body building foods) in SNEP. Stakeholders provided several ideas (e.g. sea gardens and prawn farming), which could be used for
nutrition education and food provision. While challenges to these ideas were identified, there is merit in further investigation of how protein foods can be integrated into nutrition education and school food programmes.

Stakeholders have expressed a desire to have greater advocacy for school nutrition, and nutrition in general, however it appears that there is some confusion of where responsibility for this lies given that SNEP are multisectoral, and that policy can be developed and enacted at various levels. While a regional SNEP network may assist with advocacy, a SNEP taskforce in each country may also provide more impetus and opportunity to advocate at a local level.

**Implementing and managing SNEP**

In most countries, stakeholders noted that ultimately schools are responsible for the implementation and ongoing support for SNEP. This however comes with several challenges. School Principals and teachers are reported to be time poor with other duties leaving very little time to supervise students in a garden, or to be responsible for the ongoing maintenance of a garden. One successful example of providing assistance to schools is the *Learning Garden Programme* developed and provided by the Republic of the Marshall Islands Public School System (PSS). A Learning Garden Coordinator is employed by PSS to be the contact and liaison between schools, PSS and the Ministry of Resources and Development. This has shifted the responsibility of garden maintenance from the school and provides an avenue to support student and teacher involvement, without the burden of responsibility.

Many of the SNEP’s put in place in this region are not formally evaluated, despite motivation to undertake this process. Stakeholders across all countries discussed the importance of monitoring and evaluation for future planning and funding, however reported difficulties in ensuring this process was completed, due to a lack of human resources, time, and/or funding required for this activity. Given the challenges of travelling to outer islands and communicating when stakeholders may not have access to reliable technology, it could be useful to investigate partnerships with other Australian or New Zealand academic institutions, or academic members of the country SNEP taskforce, who may be able to provide support with mechanisms/resources for monitoring, evaluation and reporting.

Some SNEP are not successful due to a lack of resourcing (human, physical and monetary). Almost all countries do not currently have an individual or group who is solely responsible for implementation, monitoring and evaluation. Most members of the relevant workforce undertake many other activities,
Discussion

with M&E often less of a priority with limited resources to travel to collect, and to analyse and report on SNEP. The country SNEP team may be an avenue for enhancing and supporting leadership in this area.

Sustainability

Given the challenges identified in developing, implementing and monitoring SNEP in the region, considerations of SNEP sustainability are essential for this project and continued activity in this area. Workshop and interviewed participants reported that risks to SNEP sustainability include: limited resources (physical [i.e. garden space, kitchen facilities] and human), funding, institutionalisation, current policy and priority areas, monitoring and evaluation and community involvement. These are in order with findings reported in the Regional Consultation on “Promoting School Gardens and Home Gardens for Better Nutrition in Asia and the Pacific” Report 13/14 July 2015 (Bangkok, Thailand) and other reports (UNSCN, Schools as a system to improve nutrition).

The recommendations proposed in Chapter Six aim to minimize risk through several strategies. For example, stakeholders in several countries reported that current facilities limit teaching opportunities (i.e. garden space), as well as monitoring and evaluation. The SNEP for these countries includes a needs-assessment of the specified issue to identify the current state, future priorities and possible ways to improve access to the required facilities.

Cost

While detailed budget information was not available during this capacity needs assessment, it is evident that the countries involved have limited funding available, and that SNEP can require a considerable cost investment. Ultimately the cost of implementing a SNEP is likely to be repaid in reduced expenditure on health, both in the short and long term, increased academic performance, both at school, and in adulthood, and increased attendance at school. Donors discussed at the workshop included; FAO, WHO, SPC, Australian/New Zealand and Donor Agencies. It is also worth considering a partnership with academia, who are often well supported with resources, and who can assist with capacity development.

Summary

It is evident that there is high motivation for SNEP in the Pacific region. Several SNEP are currently in place and are a credit to the stakeholders who have invested a significant amount of time and effort
into the development and implementation of these. While significant challenges exist, particularly regarding communication and technology, SNEP have a high probability of being successful if supported with appropriate resourcing.
Chapter 6: Recommendations

This chapter outlines the recommendations proposed from this project.

**Recommendation 1.** The FAO Sub-Regional Office for the Pacific Islands, in conjunction with Secretariat of the Pacific Community, supports the development of a formal regional SNEP stakeholder network which is made available to stakeholders in all 14-member countries. It is recommended that this network is supported by an online forum, similar to that of the FAO Global Forum on Food Security and Nutrition ‘FSN Forum’.

**Recommendation 2.** The FAO Sub-Regional Office for the Pacific Islands supports the development of a generic Learning and Teaching (L&T) resource kit that includes a framework and resources for curriculum review/redesign, and generic learning materials that can be contextualised at a local level.

**Recommendation 3.** The FAO Subregional Office for the Pacific Islands supports the trial of the generic Learning & Teaching (L&T) resource kit in one country from each of the sub-regional areas; Micronesia, Melanesia and Polynesia. Representation from a country in each of these sub-regional areas would ensure more thorough evaluation of the effectiveness of the L&T resource kit.

**Recommendation 4:** The FAO Subregional Office for the Pacific Islands supports the development and trial of a series of formal and informal training modules for teachers, parents and community members.

**Recommendation 5.** The FAO Subregional Office for the Pacific Islands supports the formalization of a SNEP taskforce in each of the 14-member countries.

**Recommendation 6.** The FAO Subregional Office for the Pacific Islands supports a trial of the proposed local SNEP in one country.

**Recommendation 7.** Upon evaluation of the trial of one local SNEP, the FAO Subregional Office for the Pacific Islands supports the development of local SNEP in the remaining countries.
Bibliography/References


FAO. SNEP Project Terms of Reference, 2017.


FAO. Nutrition education needs and capacity analysis package: Tools for an enquiry into country needs and capacity in nutrition education and nutrition education training. 2016


Appendix A. Project dissemination

Project outcomes have also been disseminated as follows;

Local stakeholders

All local stakeholders will be provided with the most current version of the proposed local SNEP for their country. This is to allow stakeholders to move ahead with planning for a SNEP if they choose to.

FAO Regional Office for Asia and the Pacific webpage (News)

School Nutrition Education Programmes in the Pacific Islands

Fiji Times article

Pacific partners unite to discuss school nutrition education

(link: https://www.fijitimes.com/pacific-partners-unite-to-discuss-school-nutrition-education/)

SUVA, 31 AUGUST 2018 (FAO) – With many Pacific Island populations facing significant nutrition related issues, a group of nutrition, health, education and agriculture stakeholders, supported by the Food and Agriculture Organisation of the United Nations (FAO) and academics from the University of the Sunshine Coast (USC) have met to discuss School Nutrition Education Programs in Fiji.

Many challenges including urbanisation, globalisation and climate change have resulted in significant changes to the food environment, and consequently the health of these populations.

Many Pacific Small Island Developing States (SIDS) currently face both chronic undernutrition and micronutrient deficiency, such as iron deficiency anaemia, with growing rates of obesity. Seven of the top ten countries in the world with the highest prevalence of diabetes are in the Pacific region.

FAO consultant, Ann Hayman said, “Extensive consultation over the previous two years identified nutrition and non-communicable disease as two of the priority areas by the FAO Subregional office for the Pacific Islands Country Programming Framework for 2018 – 2022”.

The project has been funded under a FAO Interregional Initiative to implement the Global Action Program (GAP) on Food Security and Nutrition in Small Island Developing States which aims to accelerate action on food security and nutrition to support the sustainable development of SIDS.

Lead USC researcher, Dr Sarah Burkhart said, “Schools are an ideal setting for empowering children, their families and the wider community to make healthy food choices”.

The multi-sectoral group is discussing approaches to developing a consensus on both regional and country specific school nutrition programs. Dr Libby Swanepoel of USC said, “Engagement and collaboration between key stakeholders is the first step to working together with a multisector approach to integrating nutrition into the school curriculum”.

The workshop participants have identified that school nutrition education programs may include opportunities for advocacy, professional development for teachers and stakeholders, a toolkit to integrate nutrition into curriculum, and school gardening.
Diverse School Nutrition Education Programs (SNEP) are currently used throughout the Pacific Islands (PI), however there is little understanding regarding the capacity of countries to develop and sustain these activities. The aim of this study was to undertake a Capacity Needs Assessment (CNA) of SNEP in 14 PI countries. A desk review was validated through semi-structured interviews with 88 key stakeholders (in-person n=12 countries, via email n=2 countries), and email verification of meeting summaries. Content analyses was guided by an adapted CNA Framework (FAO). There is high motivation for SNEP’s, however only 9 countries have an overarching food/nutrition/NCD policy, and 8 PI a country wide school policy. Stakeholders across 11 countries report requiring assistance to develop contextualised learning materials, and difficulty sourcing credible information for teaching. Partnerships and collaboration across sectors within each country varied with remoteness/geographical location, communication technology and funding cited as challenges, and the need for a formal regional PI stakeholder group (i.e. nutritionists, educators, agricultural experts) identified. Stakeholders reported facilities (i.e. garden space), human resources and funding limited implementation, including monitoring and evaluation. While high-level support and motivation exists, enhanced policy/normative, knowledge, partnering and implementation capacity would likely assist SNEP development and sustainability in this region.
Appendices

Presentation slides

School Nutrition Education Programmes in the Pacific Islands: A Capacity Needs Assessment
Dr Sarah Burkhardt, Ms. Ann Hayman, Ms. Breanna Jones, Ms. Pensi Lam, Prof Steven Underhill, Dr. Elizabeth Swarbrick

Background

- The Pacific region is experiencing a number of challenges, including climate change, urbanisation and nutrition transition that potentially impact dietary intake and health.
- The triple burden of malnutrition (acute and/or chronic undernutrition, micronutrient deficiencies, and obesity/diet-related non-communicable diseases) is of concern in this region.
- Nutrition education in schools provides a potential avenue to educate both youth and the wider community (teachers, staff, parents, community members).

School Nutrition Education Programmes (SNEP) project
- Scoping review (Poster B56)
- Capacity needs assessment
- Recommendations for regional and local SNEP

For this project, a School Nutrition Education Programme is defined as an intervention to improve school foodservice, nutrition and health appropriateness with the aim of influencing healthy nutrition choice and positive action when life time behaviour habits are developing in the wider community.

Aim

The aim of this study was to explore capacity for School Nutrition Education Programmes (SNEP) in 14 PI countries

Methods – Data collection

- Desk review followed by semi-structured interviews with 85 key stakeholders (in-person in 12 countries, via email in 1 country)
- Participants included stakeholders from:
  - Ministry of Health (or equivalent)
  - Ministry of Education (or equivalent)
  - Ministry of Agriculture (or equivalent)
  - Local and international NGOs
  - School Principals and Teachers
  - IAG
  - WHO
  - Local non-profit groups

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Methods – Data collection

- Interviews questions were designed to explore challenges and solutions, and discuss assessment domains (enabling environments, organisations and individuals), within the functional capacities of policy, knowledge, partnerships and implementation.

- Email verification of meeting summaries.

Methods – Analysis

- The PAC-Capacity Assessment Matrix (CAM) Summary Table was adapted for analysis and synthesis of the findings based on the framework, objectives and questions used for each functional capacity and domain.

- Qualitative content analysis was undertaken independently by two researchers, followed by discussion to gain consensus on common themes.

- Results are presented by functional capacity.

Findings – Policy

- The capacity to formulate and implement policies and legislation and responsibilities.

- 9 countries: overseeing National Nutrition Policy and/or NCD strategy.

- 8 countries: overseeing School Nutrition-related policy.

- Directives or mandates for activities.

- National policy development; National Government and associated Ministries, support of external consultants (e.g. WHO).

- At a school level: Education and/or Health sector.

- Schools develop own policy, sometimes supported.

- Stakeholders retain educators and schools, e.g., require assistance to develop policy.

Findings – Knowledge

- Limited capacity was evidenced through:
  - Limited access to appropriate and credible learning and teaching resources.
  - Educators required using out-of-date textbooks and materials not relevant to the local food supply.
  - Varying integration of nutrition in the curriculum.
  - Difficulty in sharing and exchanging relevant knowledge due to geographical location, cost and technology (e.g., lack of internet access or slow download speeds).
  - Limited research capacity to generate new knowledge.
  - Some adaptation of knowledge to the local context occurs, but limited by skill and time.

Findings – Partnering

- Limited opportunities for partnering: particularly at a national level.

- Local partnerships exist in all countries, sometimes formalised.

- Difficult for larger multistakeholder groups to understand priorities and activities, better communication of current and planned activities, e.g., better use of resources.

- Lack of regional networks and opportunities for partnerships.

- Methods used to share information locally and regionally include, informal networks (e.g., the informal Cook Islands example), phone, email, face-to-face meetings and letters/emails. Technology (email/phone) cited as a challenge to communication, particularly with remote islands.
Limited capacity to manage and implement programmes from planning to monitoring and evaluation in the Pacific region, due to:

- Lack of defined responsibility
- Access to infrastructure (facilities, resources)
- Aspects of the wider environment (e.g. availability of 'unhealthy' foods)

Current M&E activities include, health recording/growth monitoring, school health checks, participation in the Global School Health Survey (GSHS) and SOPH, nutrition checking of school canteens, and gardens/plant trees.

Where to from here...

There is limited capacity for SHEP in the Pacific Islands due to:
- Lack of supportive policy (in times)
- Access to, and sharing of knowledge
- Workforce capacity
- Geographical location (travel time and cost)
- Communication

But, there is a high level of motivation for SHEP and current examples suggest that SHEP can be successful, if supported appropriately.

Recommendations for regional and local SHEP have been developed and provided for FAO consideration.

Acknowledgements

The project team would like to acknowledge the assistance of the Food and Agriculture Organization of the United Nations Subregional Office for the Pacific Islands, the stakeholders who contributed to the project, and those individuals who assisted with identifying and contacting key stakeholders.

We would also like to acknowledge the assistance of the FAO ESN-Team (Rome) in providing feedback on project reports.
School Nutrition Education Programs in the Pacific Islands – An overview of the current situation

Sarah Burkhart¹, Ann Hayman², Breanna Jones¹, Fiasili Lam², Steven Underhill¹, Elizabeth Swanepoel¹

¹University of the Sunshine Coast, Maroochydore, QLD, Australia
²Food and Agricultural Organization of the United Nations, Subregional Office for the Pacific Islands

School aged Pacific Island (PI) populations face considerable nutrition issues including the double burden of malnutrition. Schools provide an ideal setting to influence dietary behaviours of youth and the wider community, however it is unclear if students attending PI schools are being educated on healthy nutrition practices. The aim of this study is to identify current School Nutrition Education Programs (SNEP) across 14 PI countries. A desk review was validated with semi-structured stakeholder interviews (in-person n=12 countries, via email contact n=2 countries), and email meeting summaries to identify SNEP currently in use. Thematic analysis of meeting summaries revealed three types of SNEP: curriculum; gardening; and other (sport-based, school-food). All PI countries had a formal education curriculum; however, nutrition was not explicitly included in 2 countries. The Health Promoting Schools Framework (WHO) is used in 6 PI countries, while all countries used garden-based activities but with varied and limited curriculum integration. Formal sport related activities were used in 2 countries, and school food programs are currently used to varying extent in 3 countries. A range of SNEP’s are currently used across the PI, with majority based on curriculum and gardening, however integration with the curriculum is limited.
Poster presented

School Nutrition Education Programmes in the Pacific Islands: An understanding of the current situation

Dr Sarah Warkentin1, Mi. Ann Henry2, Mi. Brionnia Jones3, Mi. Faoli Lam3, Prof Steven Underhill3, Dr. Elizabeth Swanepoel1
1Macquarie University, Sydney, Australia
2Food and Agriculture Organisation of the United Nations, Subregional Office for the Pacific Islands, Samoa

Background

The Pacific island (PI) region faces many challenges including urbanisation, globalisation and climate change. These have resulted in significant changes to the food environment, and consequently the health of these populations, particularly children and adolescents. Schools play an important role in providing both nutrition education and an environment that supports healthy behaviours2, however it is unclear if students attending PI schools are exposed to school nutrition education programmes. The aim of this study was to identify current School Nutrition Education Programmes (SNEP) across 14 PI countries.

For this project, a School Nutrition Education Programme is defined as an intervention to educate school students on nutrition and food preparation with the aim of influencing healthy nutrition choice and practice at an age when life time behaviour habits are developing and in the wider community.

Methods

The countries included in the study were: Cook Islands, Federated States of Micronesia (FSM), Fiji, Kiribati, Republic of Marshall Islands (RMI), Nauru, Niue, Palau, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, and Vanuatu.

Design: Scoping review2

Data collection

• Online desk review undertaken to identify relevant background information and SNEP for each country.
• Findings validated through semi-structured interviews with 88 key stakeholders (in-person n=12 countries, via email contact n=2 countries).
• Key stakeholders included representatives from Ministry of Health, Ministry of Education and Ministry of Agriculture (or equivalent), local/international NGOs, schools (Principals and Teachers), FAO, WHO, World Health Organisation (WHO) and local not-for-profit groups.
• Interview data was returned to each stakeholder via email for verification.

Data analysis

• The project team followed a process of thematic analysis to identify and group common themes.

Ethical approval was provided by the University of the Sunshine Coast Human Ethics Committee.

Findings

Thematic analysis of meeting summaries revealed three types of SNEP: curriculum; gardening; and other (incl. health promoting schools [HPS], sport-based, and school-food).

Curriculum

• All countries had a formal education curriculum, however nutrition was not explicitly included in two countries (Table 1).
• When present, curriculum takes a similar form across all countries with benchmark standards/learning outcomes and strands.
• Limited availability of curriculum resources for use by educators (i.e. suggested activities for learning outcomes).
• Nutrition is generally integrated into Health, Physical Education or Science subjects.

Table 1. Nutrition curriculum status in Pacific Island countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Primary</th>
<th>Secondary</th>
<th>Taught but no formal curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cook Islands</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>FSM</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Niue</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Nauru</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Palau</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>RMI</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Samoa</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Tonga</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Tuvalu</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>TOTAL</td>
<td>52</td>
<td>13</td>
<td>2</td>
</tr>
</tbody>
</table>

Gardening

• Schools in all countries used garden-based activities (i.e. container gardening), but with varied and limited curriculum integration.
• Most gardening activities are supported by the Ministry of Agriculture (or equivalent).

Other

• The Health Promoting Schools Framework (WHO) is reportedly used in six PI countries; Fiji, Niue, Solomon Islands, Samoa, Tonga and Vanuatu.
• Formal sport related activities are used in two countries (Cook Islands: Just Play, an initiative of the Oceania Football Confederation and Tonga: NBA Wellness Programmes).
• School food programs are currently used to varying extent in three countries; Palau (all schools with associated education for cooking staff, parents and students), Republic of Marshall Islands and Samoa (some schools).
• The Pacific Science for Health Literacy Project (PSHL) is used in a number of schools across Cook Islands (Keretanga) and Tonga.
• Events such as World Food Day are well supported in schools.

Conclusion

• A range of SNEP are currently used across the PI, with majority based on curriculum and gardening, however integration of gardening activities with the curriculum is limited.

Acknowledgements

The project team would like to acknowledge the assistance of the PAU Subregional Office for the Pacific Islands, and the stakeholders, including representatives from the Education, Health, Nutrition and Agriculture sectors across 14 countries, who contributed to this project. The project team would also like to thank the individuals who assisted with identifying and contacting key stakeholders. This project was funded by the PAU Subregional Office for the Pacific Islands.

References

3 Participants included representatives from local and international NGOs, schools, Ministry of Health, Ministry of Education, Ministry of Agriculture, FAO, WHO, World Health Organisation (WHO), and local not-for-profit organisations.
**Peer-reviewed publication**

A manuscript is currently being prepared for submission to a high impact international journal. This is planned for submission by 28 February 2019. The draft aim of this manuscript is to describe the need and capacity for school nutrition education in the Pacific Islands.
Appendix B. Documents

- Island Food Community of Pohnpei. Information. Local Phonebook.


• Insights from HPS Western Region Health promoting schools: experiences from the Western Pacific Region. World Health Organization Regional Office for the Western Pacific; 2017. Licence: CC BY-NC-SA 3.0 IGO. Available from: http://iris.wpro.who.int/bitstream/handle/10665.1/13551/9789290617884-eng.pdf


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• Improved consumption of locally grown, safe nutritious food in Kiribati communities and Junior Secondary Schools. Personal Communication.


- Food and nutrition security in Solomon Islands. [Online]. Available from: http://pu


- Tuvalu education resource.


Appendix C. Stakeholders consulted

All representatives were spoken to face to face unless otherwise indicated.

Representatives from:

**Cook Islands**
- Ministry of Health, Cook Islands
- Principal - local Primary School, Cook Islands
- Others approached via email – no response as at report preparation date

**Federated States of Micronesia**
- Ministry of Education, Pohnpei
- Others approached via email – no response as at report preparation date

**Kiribati**
- Ministry of Health
- Curriculum Development and Resource Centre
- Taiwanese Technical Mission (TTM)
- FAO
- UNICEF
- FAO representative – Kiribati project
- MELAD

**Fiji**
- National Food and Nutrition Centre, Fiji
- Ministry of Education
- Secretariat of the Pacific Community

**Nauru**
- Agriculture team
- Public Health
- Ministry of Education
- Nauru Combine Women’s fellowship
- Taiwan Technical Mission
- Local school teachers (Infant, Primary and College)

**Niue**
- Ministry of Natural Resources, Niue
- Department of Agriculture
- Department of Health
- Department of Education
- Local High School
- Physical Education Teacher – High School, Niue

**Palau**
- Vice Principal – local Elementary School Palau
- Principal – local Elementary School (via email)
- Food Services Team, MoE
- Food Services Nutrition Volunteer, MoE
- NCD Programme MoH
- TTM representatives (x2)
Appendices

Republic of Marshall Islands
- Canvasback Wellness Centre
- Ministry of Resources and Development
- Learning Garden
- PSS
- WUTMI
- Department of Fisheries (contact via email)
- Nishi Trading (contact via email)

Tuvalu
- Key stakeholders approached via email – no response as at report preparation date

Samoa
- Ministry of Health, Samoa
- FAO
- World Bank
- Ministry of Education, Culture and Sports

Solomon Islands
- Ministry of Health, Solomon Islands
- Grow Green, Eat Green NGO representatives
- FAO/MoA
- World Vision
- Taiwanese Technical Mission (TTM)

Tokelau
- Key stakeholders approached via email (Department of Health)

Tonga
- TongaHealth (via Skype)
- Teachers – local High School
- Ministry of Education
- Food Division, MAFFF
Appendix D. Interview questions
**SNEP Semi-structured interview**

Date: ________________

Thank you for meeting with me today. My name is Sarah Burkhart/Libby Swanepoel. I am undertaking a project with the FAO about School Nutrition Education Programmes. I have undertaken a desk review and found information on the SNEP (insert name). I would like to find out if I have the correct information and ask a few questions if possible.

Country represented:
Country representative:

Could you please confirm if the following information is correct?

<table>
<thead>
<tr>
<th>SNEP details</th>
<th>Correct</th>
<th>Incorrect</th>
<th>Change(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start date</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>End date</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Region/location</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SNEP aim

We have identified that the SNEP aimed to (insert relevant desk review data).
Can you confirm this, or if this is not correct, could you please tell us what the aim is/was?

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
<th>Change(s)</th>
</tr>
</thead>
</table>

We have identified that (insert number) number of schools participate/participated in the SNEP. Is this correct?

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
<th>Change(s)</th>
</tr>
</thead>
</table>

**Question**

<table>
<thead>
<tr>
<th>Question</th>
<th>Prompts</th>
<th>Participant response</th>
</tr>
</thead>
<tbody>
<tr>
<td>For SNEP's no longer in progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How many schools continued to be a part of the programme for its duration?</td>
<td>Why/Why not?</td>
<td></td>
</tr>
<tr>
<td>Why did the SNEP finish?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>What worked well with this programme?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What were the difficulties or challenges with the programme?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How could the programme be improved?</td>
<td>What would you need to keep the programme running in the future?</td>
<td></td>
</tr>
<tr>
<td>Do you know of any other SNEP’s that I could look into?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For SNEP’s currently running</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How many schools are currently involved in the programme?</td>
<td>Why do you feel schools are continuing to be involved? For what reasons do you think schools are not involved?</td>
<td></td>
</tr>
<tr>
<td>What works well with this programme?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What are the difficulties or challenges with the programme?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How could the programme be improved?</td>
<td>What would you need to keep the programme running in the future?</td>
<td></td>
</tr>
<tr>
<td>Do you know of any other SNEP’s that I could look into?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity needs assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any policies that require a SNEP in (your country)?</td>
<td>Yes - Tell me more about this policy.</td>
<td></td>
</tr>
<tr>
<td>What Ministry/Organisation is responsible for SNEP policy?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any associated ministries/departments?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you feel that policies to support SNEPs are easy to find?</td>
<td>Where do you access them?</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>How have politics influenced SNEPs in (your country)?</td>
<td>Have there been any policies that have helped to get a SNEP running?</td>
<td></td>
</tr>
<tr>
<td>How much of the public expenditure goes into SNEPs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who makes decisions about what money is provided for SNEPs?</td>
<td>Do you know how these decisions are made?</td>
<td></td>
</tr>
<tr>
<td>Knowledge capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where do you get the information for the SNEP from?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How is this information used in the programme?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you feel that staff on the programme have the skills that are needed to implement the programme?</td>
<td>Why/why not?</td>
<td></td>
</tr>
<tr>
<td>Nutrition, health and food safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any SNEP training opportunities for staff?</td>
<td>Yes - Tell me more about these.</td>
<td></td>
</tr>
<tr>
<td>Is anyone involved in research (generating new knowledge/information)?</td>
<td>No – Why not?</td>
<td></td>
</tr>
<tr>
<td>Is there a nutrition curriculum?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there a food preparation curriculum?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there school garden and livestock curriculum education?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are curriculum materials available?</td>
<td>Yes - Tell me more about them?</td>
<td></td>
</tr>
<tr>
<td>Partnerships</td>
<td>No - Why do you think no one is involved in research?</td>
<td></td>
</tr>
<tr>
<td>Do you have any formal partnerships with other people or stakeholders or organisations are involved in the programme?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Are there any informal partnerships with other people or stakeholders or organisations as part of this programme?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are parents/caregivers involved in the SNEP?</td>
<td>If yes, how? Is this successful? Why?</td>
<td></td>
</tr>
<tr>
<td>Are the Church and/or community groups involved in the SNEP?</td>
<td>If yes, how? Is this successful? Why?</td>
<td></td>
</tr>
<tr>
<td>How do you share information between partners?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you feel that staff on the programme have the skills that are needed to work with other partners?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who or what partners do you think would improve or make your programme better?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who is responsible for the implementation of SNEPs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any other organisations who provide funding (money) to support the running of the programme?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Are there other organisations who are involved or support in the program in any ways? | In-kind support
| Are any individuals employed to implement the SNEP?                     | If so, how many? |
| Has the SNEP been evaluated?                                            | If yes, how so and what was found? |
| Are there any educational indicators related to SNEP’s?                 |        |
# Appendix E. Agenda

**AGENDA**

## School Nutrition Education Programmes in the Pacific Islands Workshop

Tuesday 28th and Wednesday 29th August 2018

**Attendees:**

*(in alphabetical order)*

- Mr Sevaki Fa’eo (TongaHealth, Tonga)
- Ms Karen Fukofuka (SPC)
- Ms Elay Haulangi (Department of Agriculture, Nauru)
- Ms Ann Hayman (FAO/NZ)
- Ms Ateca Kama (National Food and Nutrition Centre, Fiji)
- Ms Roslyn Kaising Biagke (Ministry of Health, Vanuatu)
- Ms Fiona Laeta (Department of Education, Solomon Islands)
- Ms Breana Pasisi Makaia (Department of Agriculture, Niue)
- Mr Darryl Pupi (Ministry of Health, Samoa)
- Ms Karen Tairea (Ministry of Health, Cook Islands)

**SNEP project team:**

- Dr Sarah Burkhart (Project lead, University of the Sunshine Coast, Australia)
- Ms Breanna Jones (University of the Sunshine Coast, Australia)
- Dr Libby Swanepoel (University of the Sunshine Coast, Australia)

**Objectives of the workshop**

- To obtain feedback on country specific, and Pacific wide SNEP
- Confirm proposed methodology and tool kit items
- Discuss cultural specifications for each SNEP
- To identify challenges/solutions to SNEP introduction and sustainability
- To identify appropriate methods of governance and communication between SNEP stakeholders
- To identify further champions of SNEP

**Please read:**

- Background milestone information (previously emailed)

**Please bring:**

- Any feedback obtained from other stakeholders. Copies of all other documents will be provided in printed form and on a USB at the workshop on arrival.
Day One: Tuesday 28\textsuperscript{th} August 2018

9am – 9.15am  Workshop opening  
   Official welcome and opening – Ms Ann Hayman (FAO-NZ)  
   Overview of the SNEP project journey to date – Ms Ann Hayman/Dr Sarah Burkhart  
   Brief overview of the SNEP project (key objectives)  
   Key objectives and outcomes of the SNEP workshop

9.15am – 10.30am  Meet and greet activity (mystery box food activity)

10.30am – 11.00am  Morning break

11.00am – 12.30pm  \textbf{Session 1: The proposed Pacific wide SNEP}  
   Session aim: To discuss and gather feedback on the components of the proposed Pacific wide (regional) SNEP  
   Activity: SWOT analysis  
   Facilitator: Dr Sarah Burkhart  
   Activity: Participants were asked to undertake a SWOT analysis of each recommendation.

12.30pm – 1.15pm  Lunch break

1.15pm – 2.45pm  \textbf{Session 2: The proposed local SNEP}  
   Session aim: To discuss and gather feedback on the components of the proposed country specific SNEP  
   Activity: Small group brainstorm, group discussion  
   Facilitator: Dr Sarah Burkhart

   \textbf{PART 1. Impact}  
   Question: \textit{How do you see the intended impact of the SNEP in your country?}  
   Question: \textit{School food and nutrition typically focuses on fruits and vegetables, what about protein? How do we incorporate this into SNEP?}

   \textbf{PART 2. Curriculum}  
   The resource; \textit{Nutrition Education in Primary Schools} is available to assist with curriculum design (an overview of the tool approach was
provided). Could you please consider this resource and answer the following questions?

Nutrition education in Primary Schools: A planning guide for curriculum development (FAO) - click here

Question: *What are the enablers and barriers to this approach in your country?*

**PART 3. L&T pack questions**

Participants were asked to consider the following questions and write answers on sticky notes. These were then posted under the relevant heading.

Question: *How do we make the L&T pack approach Sustainable?*

Contextualised?

Develop workforce capacity?

---

**2.45pm – 3pm**

Afternoon break

---

**3pm – 4.30pm**

**Session 3: Pacific Regional Stakeholder Group**

Session aims: To discuss and gather feedback on the components and integration of the proposed Pacific wide (regional) and country specific SNEP and to formalise SNEP’s – what else do we need to consider?

Activity: Group discussion (small/entire group)

Facilitator: Dr Sarah Burkhart

Question: *The Pacific Island Regional Stakeholder Group. Who would drive this group at a regional level?*

Question: *What views need to be represented?*

Question: *How could information be shared and communicated within this group?*

Question: *What are the challenges to forming this multisector group? What are the solutions?*

---

**4.30pm**

Close of day 1
### Day Two: Wednesday 29th August 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>9am – 9.15am</td>
<td>Workshop commences</td>
</tr>
<tr>
<td></td>
<td>Brief recap of day 1</td>
</tr>
<tr>
<td></td>
<td>Review of agenda (incl. key objectives/outcomes)</td>
</tr>
<tr>
<td>9.15am – 10.30am</td>
<td><strong>Session 4: Stakeholders</strong></td>
</tr>
<tr>
<td></td>
<td>Session aim: to identify and discuss key SNEP stakeholders</td>
</tr>
<tr>
<td></td>
<td>Activity: Stakeholder analysis</td>
</tr>
<tr>
<td></td>
<td>Facilitator: Dr Sarah Burkhart</td>
</tr>
<tr>
<td>10.30am – 11.00am</td>
<td>Morning break</td>
</tr>
<tr>
<td>11.00am – 12.15pm</td>
<td><strong>Session 5: Governance and advocacy</strong></td>
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<tr>
<td></td>
<td>Session aim: to discuss SNEP policy and advocacy needs</td>
</tr>
<tr>
<td></td>
<td>Activity: Group discussion</td>
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<tr>
<td></td>
<td>Facilitator: Dr Libby Swanepoel</td>
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<td></td>
<td>Policy entry points</td>
</tr>
<tr>
<td></td>
<td>Questions:</td>
</tr>
<tr>
<td></td>
<td>Who has a National policy to support SNEP? How has this worked? What</td>
</tr>
<tr>
<td></td>
<td>have been the challenges?</td>
</tr>
<tr>
<td></td>
<td>Who has a school level policy to support SNEP? How has this worked?</td>
</tr>
<tr>
<td></td>
<td>What have been the challenges?</td>
</tr>
<tr>
<td></td>
<td>Who does not have any current policy to support SNEP? What would be the</td>
</tr>
<tr>
<td></td>
<td>best step forward for you?</td>
</tr>
<tr>
<td></td>
<td>Discussion of what nutrition education means – does it include the</td>
</tr>
<tr>
<td></td>
<td>provision of food?</td>
</tr>
<tr>
<td></td>
<td>Advocacy</td>
</tr>
<tr>
<td></td>
<td>Questions:</td>
</tr>
<tr>
<td></td>
<td>What has worked well in the past? Can you share an example?</td>
</tr>
<tr>
<td></td>
<td>What are your advocacy needs?</td>
</tr>
<tr>
<td></td>
<td>How do you present information from this workshop back to your country</td>
</tr>
<tr>
<td></td>
<td>stakeholders?</td>
</tr>
<tr>
<td>12.15pm – 1.00pm</td>
<td>Lunch break</td>
</tr>
<tr>
<td>1.00pm – 2.00pm</td>
<td><strong>Session 6: SNEP sustainability</strong></td>
</tr>
<tr>
<td></td>
<td>Session aim: To discuss the sustainability of SNEP</td>
</tr>
<tr>
<td></td>
<td>Activity: Group discussion</td>
</tr>
<tr>
<td></td>
<td>Facilitator: Dr Sarah Burkhart</td>
</tr>
<tr>
<td></td>
<td>Question: What would help to ensure sustainability of a regional SNEP?</td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>2.00pm – 2.15pm</td>
<td>Afternoon break</td>
</tr>
<tr>
<td>2.15pm – 4.00pm</td>
<td><strong>Session 7: Workshop recap</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Session aim:</strong> What have we discussed, and how do we move forward? SNEP team</td>
</tr>
<tr>
<td></td>
<td><strong>Activity:</strong> Individual reflection, group discussion</td>
</tr>
<tr>
<td></td>
<td><strong>Facilitator:</strong> Dr Sarah Burkhart</td>
</tr>
<tr>
<td></td>
<td><strong>Question:</strong> As we start to summarise the SNEP workshop, what are your current reflections on SNEP in the Pacific region?</td>
</tr>
<tr>
<td></td>
<td><strong>Question:</strong> How do we move forward? What do we need to do next? What can the SNEP team do to assist you?</td>
</tr>
<tr>
<td>4.00pm - 4.30pm</td>
<td>Workshop close</td>
</tr>
<tr>
<td>4.30pm</td>
<td>Conclusion of workshop</td>
</tr>
</tbody>
</table>
Appendix F. Local SNEP

Table 1. Overview of proposed components of local SNEP

<table>
<thead>
<tr>
<th>Country</th>
<th>Curriculum</th>
<th>Supporting learning and teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Review</td>
<td>Learning and teaching</td>
</tr>
<tr>
<td></td>
<td>Development</td>
<td>Teacher and parent training</td>
</tr>
<tr>
<td></td>
<td>Resources</td>
<td>Facilities needs assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>School garden needs assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>School food link</td>
</tr>
<tr>
<td>Cook Islands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federated States of Micronesia (FSM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiji</td>
<td></td>
<td></td>
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<tr>
<td>Kiribati</td>
<td></td>
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<tr>
<td>Nauru</td>
<td></td>
<td></td>
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<tr>
<td>Niue</td>
<td></td>
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<tr>
<td>Palau</td>
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<tr>
<td>Republic of Marshall Islands (RMI)</td>
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<tr>
<td>Samoa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solomon Islands</td>
<td></td>
<td></td>
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<tr>
<td>Tokelau</td>
<td></td>
<td></td>
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<tr>
<td>Tonga</td>
<td></td>
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<tr>
<td>Tuvalu</td>
<td></td>
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<tr>
<td>Vanuatu</td>
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</tr>
</tbody>
</table>

Note: Symbols indicate the presence of components: 
- Leaf = Component present
- No symbol = Component not present

This table provides an overview of the proposed components of local School Nutrition Education Programmes (SNEP) in the Pacific Islands. Each country listed above is evaluated for the presence of specific components such as curriculum review, curriculum development, learning and teaching resources, teacher and parent training, facilities needs assessment, school garden needs assessment, and school food link.
Cook Islands

Summary

Nutrition curriculum is currently being addressed in Cook Islands through the school curriculum and PSHLP, however further integration of gardening could be addressed in the curriculum at primary level. A need for more Cook Island specific resources was also identified in discussions with stakeholders. It is recommended that a SNEP could include incorporating gardening into the curriculum, and to aid stakeholders to develop the contextual resources required for teaching. This SNEP would assist the Cook Islands to integrate gardening into the school curriculum, therefore providing an opportunity to teach students about agriculture, land use/sustainability, nutrition and health. Teachers and students would also have access to contextualised resources to enhance their learning.

SNEP components

Action 1: Create SNEP Taskforce

Action 2: Undertake activities outlined

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Focus</th>
<th>Actions</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Curriculum review</td>
<td>Curriculum mapping: map existing nutrition related content and review this, particularly with a focus on integrating more gardening and nutrition, where possible. If required, redevelopment of curriculum.</td>
<td>12 months</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO). A new deal for school gardens (FAO).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting Learning and Teaching</th>
<th>Focus</th>
<th>Actions</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teaching and learning resources (adapted from L&amp;T tool kit)</td>
<td>Resource development: development of a localised teaching resource pack linked to the curriculum including; Learning outcomes, Lesson plans (teaching ideas/examples) that integrate with the curriculum, and general learning resources:</td>
<td>12 months (alongside or post curriculum review)</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO).</td>
</tr>
<tr>
<td>Focus</td>
<td>Actions</td>
<td>Indicative timeframe</td>
<td>Chapter/resource reference</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------------------------------</td>
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<td>-----------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| School gardening needs assessment | • Posters  
• Pamphlets  
• Factsheets  
• Textbook(s)  
• Media/video  
• Food models (i.e. plastic food) | 6 months             | A new deal for school gardens (FAO). |

**Development of a Learning Garden kit**  
(including a home gardening booklet), informed by each school’s requirements, but likely to include basic gardening equipment (i.e. containers), associated ‘how to use equipment’ information sheets, information sheets on chosen fruits/vegetables), lesson plans and activities.

Undertake a needs assessment of school gardens in Cook Islands to identify current school use and requirements (i.e. lack of land – container gardening more suitable, access to equipment, staff capacity).
Federated States of Micronesia (FSM)

Summary

Based on the information available for FSM, it is recommended that a SNEP that compliments Recommendation 3 provided in the Policy measure to increase local food supply and improve food security in the Federated States of Micronesia document be introduced. A school lunch program could be enhanced through the integration of school (or local community) gardens, and the inclusion of nutrition curriculum. This would be an opportunity to review and integrate basic nutrition into the FSM curriculum. This SNEP would assist local stakeholders to develop a nutrition curriculum that is embedded in the cultural context of this country, enhancing the students learning journey. Linking the SNEP to a school food program also has the added benefit of supporting local agriculture and providing an avenue to embed gardening and local foods into the curriculum.

SNEP components

Action 1: Create SNEP Taskforce

Action 2: Undertake activities outlined

<table>
<thead>
<tr>
<th>Curriculum</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Activities</td>
</tr>
<tr>
<td>Curriculum development</td>
<td>Curriculum development Mapping (map existing nutrition related content) and review this, particularly with a focus on integrating more gardening and nutrition, where possible. Develop curriculum benchmarks, and curriculum for each grade.</td>
</tr>
<tr>
<td>Supporting learning and teaching</td>
<td></td>
</tr>
<tr>
<td>Focus</td>
<td>Activities</td>
</tr>
<tr>
<td>Teaching and learning resources</td>
<td>Resource development: development of a localised teaching resource pack linked to the curriculum including learning outcomes, lesson plans</td>
</tr>
</tbody>
</table>
### Supporting learning and teaching

<table>
<thead>
<tr>
<th>Focus</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
</table>
| School gardening needs assessment | (teaching ideas/examples) and general learning resources:  
- Posters  
- Pamphlets  
- Factsheets  
- Textbook(s)  
- Media/video  
- Food models (i.e. plastic food)  

Development of a gardening kit (informed by the needs assessment, but likely to include basic gardening equipment (i.e. containers), associated ‘how to use equipment’ information sheets, information sheets on chosen fruits/vegetables).  

Undertake a needs assessment of school gardens/school food in FSM to identify current school use and requirements (i.e. lack of land – container gardening more suitable, access to equipment, staff capacity). | 9 months | curriculum development (FAO).  
A new deal for school gardens (FAO).  
Setting up and running a school garden (FAO).  
FAO Needs Assessment tool |
Fiji

Summary

Given the success of SNEP’s in Fiji it is recommended that support is provided to produce more resources for teachers to integrate nutrition in the classroom and gardening activities. This would provide Fijian students with access to more resources and assist teachers to enhance the learning process. It also provides impetus for schools to consider promoting gardening.

SNEP components

Action 1: Create SNEP Taskforce

Action 2: Undertake activities outlined

<table>
<thead>
<tr>
<th>Focus</th>
<th>Actions</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum review</td>
<td>Curriculum mapping: map existing nutrition and gardening related content. Review this in line with current curriculum standards and identify if further curriculum redevelopment required.</td>
<td>6 – 9 months</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO)</td>
</tr>
</tbody>
</table>

Supporting learning and teaching

<table>
<thead>
<tr>
<th>Focus</th>
<th>Actions</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching and learning resources</td>
<td>Resource development: development of a localised teaching resource pack linked to the curriculum including; Learning outcomes, Lesson plans (teaching ideas/examples) and general teaching resources:</td>
<td>12 months</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO).</td>
</tr>
</tbody>
</table>
## Supporting learning and teaching

<table>
<thead>
<tr>
<th>Focus</th>
<th>Actions</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School garden facilities</strong></td>
<td>• Posters</td>
<td></td>
<td><em>A new deal for school gardens (FAO).</em></td>
</tr>
<tr>
<td></td>
<td>• Pamphlets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Factsheets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Textbook(s)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Media/video</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Food models (i.e. plastic food)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Gardening kit</strong> (informed by each school’s needs) but likely to include basic gardening equipment (i.e. containers), associated ‘how to use equipment’ information sheets, information sheets on chosen fruits/vegetables). A recently developed ‘Grow Your Own Food’ by the NFNC in consultation with FAO, could be used.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Needs assessment</strong>: undertake a needs assessment of school gardens in Fiji to identify current school use and requirements (i.e. lack of land – container gardening more suitable, access to equipment, staff capacity).</td>
<td></td>
<td><em>FAO Needs Assessment tool</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 – 9 months</td>
<td><em>Setting up and running a school garden (FAO).</em></td>
</tr>
</tbody>
</table>
Kiribati

Summary

HPS was previously used in Kiribati, however this framework is no longer in use. Based on the information available for Kiribati it is recommended that a SNEP for this region be initiated with a feasibility study of reintroducing the recognised HPS framework. This may be able to run in conjunction with the proposed FAO project: *Improved consumption of locally grown, safe nutritious food in Kiribati communities and Junior Secondary Schools*. This SNEP would assist Kiribati to integrate gardening into the school curriculum, therefore providing an opportunity to teach students about agriculture, land use/sustainability, nutrition and health. Teachers and students would also have access to contextualised resources to enhance their learning. HPS would provide a framework to link nutrition activities to other HPS topics.

**SNEP components**

**Action 1: Create SNEP Taskforce**

**Action 2: Undertake activities outlined**

<table>
<thead>
<tr>
<th>Curriculum</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Activities</td>
</tr>
<tr>
<td>Curriculum review</td>
<td><strong>Curriculum mapping:</strong> map existing nutrition and gardening related content. Review this in line with curriculum standards and identify if further curriculum redevelopment may be made.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Curriculum teaching and learning resources</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Activities</td>
</tr>
<tr>
<td>Feasibility study</td>
<td>Undertake a feasibility study to identify if HPS may be able to be re-introduced in Kirabati.</td>
</tr>
<tr>
<td>Teaching and learning resources</td>
<td><strong>Resource development:</strong> development of a localised teaching resource pack linked to the curriculum (focused on</td>
</tr>
<tr>
<td>Focus</td>
<td>Activities</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| nutrition/gardening), including; learning outcomes, lesson plans (teaching ideas/examples), and general resources: | • Posters  
• Pamphlets  
• Factsheets  
• Textbook(s)  
• Media/video  
• Food models (i.e. plastic food) |                      | curriculum development (FAO).  
A new deal for school gardens (FAO).  
Setting up and running a school garden (FAO) |
Nauru

Summary

It is recommended that a SNEP in Nauru be used to support integrating the School Kitchen Garden project with the curriculum. To do this, facilities to prepare/cook garden harvest is required. A kitchen facility for each school would provide students with the opportunity to grow, harvest, prepare and consume their own, locally and sustainably produced food. As Nauru is experiencing challenges with the consistency and nutrition quality of its School Food program, a successful School Kitchen Garden would serve as support for this, in that caterers (those who are contracted to supply food on the school premises), could use these facilities under the supervision of the School Environmental Officer. This would provide for enhanced monitoring of the food provided to students.

SNEP Components

Action 1: Create SNEP Taskforce

Action 2: Undertake activities outlined

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Focus</th>
<th>Actions</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><em>Curriculum development:</em> map existing nutrition related content and review this, particularly with a focus on integrating more gardening and nutrition, where possible (link School Kitchen Garden project with the curriculum) Develop curriculum benchmarks, and curriculum for each grade.</td>
<td>12 – 24 months</td>
<td><em>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO).</em></td>
</tr>
</tbody>
</table>

Supporting learning and teaching

<table>
<thead>
<tr>
<th>Supporting learning and teaching</th>
<th>Focus</th>
<th>Actions</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
</table>
|                                 |       | *Resource development:* continued development of a localised teaching resource pack linked to the nutrition/gardening curriculum including; Learning outcomes, Lesson plans (teaching ideas/examples), and general resources: | 12 months (alongside curriculum development) | *Nutrition education in Primary Schools: A planning guide for curriculum development (FAO).*  
*A new deal for school* |
### Supporting learning and teaching

<table>
<thead>
<tr>
<th>Focus</th>
<th>Actions</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>School facilities needs assessment</td>
<td>• Posters&lt;br&gt;• Pamphlets&lt;br&gt;• Factsheets&lt;br&gt;• Textbook(s)&lt;br&gt;• Media/video&lt;br&gt;• Food models (i.e. plastic food) &lt;br&gt;Development of a gardening kit (informed by each school’s needs, but likely to include basic gardening equipment (i.e. containers), associated ‘how to use equipment’ information sheets, information sheets on chosen fruits/vegetables).&lt;br&gt;Undertake a needs assessment of school facilities to identify the equipment needed to integrate nutrition into the curriculum and provide practical learning opportunities (i.e. what kitchen equipment/facilities, gardening equipment is required for the proposed SNEP).&lt;br&gt;Undertake a feasibility study to identify how the School Kitchen Garden project can link gardening, nutrition and provision of school food in Nauru.</td>
<td>9 months</td>
<td>A new deal for school gardens (FAO).&lt;br&gt;Setting up and running a school garden (FAO).&lt;br&gt;FAO Capacity Needs Assessment tool.</td>
</tr>
<tr>
<td>Feasibility study/pilot&lt;br&gt;(linking gardening, nutrition and school food)</td>
<td></td>
<td>12 months</td>
<td></td>
</tr>
</tbody>
</table>
Niue

Summary

SNEP’s identified in Niue currently work well due to stakeholders (health, education, natural resources) who appreciate, and understand the current nutrition related health issues facing the Niuean population, and who are actively collaborating to create a healthier school environment and wider community, but would benefit from capacity building, assistance with resource development, and extra facilities. It is recommended that the current successful Health Promoting Schools program be expanded with the inclusion of staff and parent training (basic nutrition, food preparation/cooking skills), the use of a shared learning garden that is integrated into the curriculum, physical resources to support teaching (i.e. activity booklets, food models, posters, pamphlets, media [i.e. documentaries,] and consideration of developing an App [Application] to further engage students in the SNEP. These activities would assist both students, and the wider school community to engage in healthier nutrition behaviours.

SNEP Components

Action 1: Create SNEP Taskforce

Action 2: Undertake activities outlined

<table>
<thead>
<tr>
<th>Curriculum</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Activities</td>
</tr>
<tr>
<td><strong>Curriculum review</strong></td>
<td><strong>Curriculum review</strong>: map existing nutrition related content and review this, particularly with a focus on integrating more gardening and nutrition, where possible.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Curriculum teaching and learning resources</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Activities</td>
</tr>
<tr>
<td><strong>Teaching and learning resources</strong> <em>(adapted from L&amp;T kit)</em></td>
<td><strong>Resource development</strong>: development of a localised teaching resource pack linked to the curriculum <em>including</em>; learning outcomes, lesson plans (teaching</td>
</tr>
<tr>
<td>Focus</td>
<td>Activities</td>
</tr>
<tr>
<td>-------</td>
<td>------------</td>
</tr>
</tbody>
</table>
| Needs assessment: School facilities | ideas/examples), and general learning resources:  
- Posters  
- Pamphlets  
- Factsheets  
- Textbook(s)  
- Media/video  
- An ‘App’  
- Food models (i.e. plastic food)  
Development of a gardening kit (informed by each school’s needs, but likely to include basic gardening equipment (i.e. containers), associated ‘how to use equipment’ information sheets, information sheets on chosen fruits/vegetables) | 6 months | A new deal for school gardens (FAO).  
Setting up and running a school garden (FAO). |
| Community involvement  
(developed from generic Pacific teacher/parent education tool) | Undertake a needs assessment of school facilities to identify the equipment needed to integrate nutrition into the curriculum and provide practical learning opportunities (i.e. what kitchen equipment, gardening equipment is required for the proposed SNEP).  
Development of a parent/child cooking workshop (focus on food preparation, food safety, cooking skills and healthy eating behaviours). | 6 months | FAO Capacity Needs Assessment tool. |
Palau

Summary

The current School Lunch Program, managed by the Food Service team at the MoE, already incorporates successful outreach in the form of training teachers, parents and school canteen workers. It is recommended that support is provided to the School Food Program to enable this to be further expanded into a more comprehensive SNEP. This should include a review of nutrition curriculum and development of specific Palauan resources for teaching. This will provide a more comprehensive SNEP and enhance both the teaching and learning experience for teachers and students.

SNEP Components

Action 1. Create SNEP Taskforce

Action 2: Undertake activities outlined

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum review</td>
<td><strong>Curriculum review:</strong> map existing nutrition related content and review this, particularly with a focus on integrating more gardening and nutrition, where possible.</td>
<td>12 months</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO).</td>
</tr>
</tbody>
</table>

Supporting learning and teaching

<table>
<thead>
<tr>
<th>Focus</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
</table>
| Teaching and learning resources (adapted from L&T kit) | **Resource development**
Development of a localised teaching resource pack linked to the curriculum
Including: Learning outcomes, Lesson plans (teaching ideas/examples), and general learning resources:
- Posters | 12 months | Nutrition education in Primary Schools: A planning guide for curriculum development (FAO). |
### Supporting learning and teaching

<table>
<thead>
<tr>
<th>Focus</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role models</td>
<td>• Pamphlets</td>
<td></td>
<td><em>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO).</em></td>
</tr>
<tr>
<td></td>
<td>• Factsheets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Textbook(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Media/video</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Food models (i.e. plastic food)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recruitment of 'Nutrition champions' to act as role models and plan for engagement of these individuals.</td>
<td>6 months</td>
<td></td>
</tr>
</tbody>
</table>
Republic of Marshall Islands (RMI)

Summary

RMI is proactive and has support from Government departments, and local NGO’s to move ahead with SNEP’s. As PSS has already initiated nutrition curriculum re-development, and has the Learning Garden initiative, it is recommended that a SNEP in RMI be used to support integrating the Learning Garden project with the curriculum. To do this, facilities to prepare/cook garden harvest are required. A kitchen facility for each school would provide students with the opportunity to grow, harvest, prepare and consume their own, locally produced food. As RMI is actively trying to initiate a comprehensive School Food program, this would serve as support for this, in that vendors (those who are contracted to supply food on the school premises), could use these facilities under the supervision of PSS. This would provide for enhanced monitoring of the food provided to students. This SNEP would also assist RMI to integrate gardening into the school curriculum, therefore providing an opportunity to teach students about agriculture, land use/sustainability, nutrition and health. Teachers and students would also have access to contextualised resources to enhance their learning.

SNEP Components

Action 1: Create SNEP Taskforce

Action 2: Undertake activities outlined

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
</table>
| **Curriculum review** | *Continued curriculum review:* continued curriculum design through mapping existing nutrition related content and review, particularly with a focus on integrating more gardening and nutrition, where possible. | 12 - 24 months | Nutrition education in Primary Schools: A planning guide for curriculum development (FAO).  
A new deal for school gardens (FAO). |

*PSS has already initiated nutrition curriculum re-development, and has the Learning Garden initiative, therefore the SNEP should continue to support this work.*
<table>
<thead>
<tr>
<th>Focus</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
</table>
| Teaching and learning resources | **Resource development:** Continued development of a localised teaching resource pack linked to the nutrition/gardening curriculum *including*; learning outcomes, lesson plans (teaching ideas/examples) and general learning resources:  
  - Posters  
  - Pamphlets  
  - Factsheets  
  - Textbook(s)  
  - Media/video  
  - Food models (i.e. plastic food)  
  - Gardening kit (informed by each school’s needs, but likely to include basic gardening equipment (i.e. containers), associated ‘how to use equipment’ information sheets, information sheets on chosen fruits/vegetables)  

Further support could be provided to the Wellness Centre to expand their current activities which fit within this concept.  

Development of more teacher training workshops (focus on making use of resources (resource packs) and integrating the school garden) into teaching activities. Parent workshops can be used to teach parents about the benefits of gardening as well as basic gardening/food preparation skills. | 12 months | Nutrition education in Primary Schools: A planning guide for curriculum development (FAO).  
A new deal for school gardens (FAO).  
Setting up and running a school garden (FAO). |
<p>| Teacher and parent education  | Adapted from generic Pacific Teachers/Parents education tool               | 9 months             | FAO Needs Assessment document                                                               |
| School facilities needs assessment |                                                                             | 12 months           |                                                                                             |</p>
<table>
<thead>
<tr>
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<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feasibility study/pilot linking gardening, nutrition and school food</td>
<td>Undertake a needs assessment of school facilities to identify the equipment needed to integrate nutrition into the curriculum and provide practical learning opportunities (i.e. what kitchen equipment/facilities, gardening equipment is required for the proposed SNEP). &lt;br&gt; Undertake a feasibility study/pilot to identify how a School Food Program can link gardening, nutrition and provision of school food in RMI.</td>
<td>12 – 18 months</td>
<td></td>
</tr>
</tbody>
</table>
Samoa

Summary

Given the success of SNEP’s in Samoa it is recommended that support is provided to produce more resources for teachers to integrate nutrition in the classroom and gardening activities. This SNEP would assist Samoa to integrate gardening into the school curriculum, therefore providing an opportunity to teach students about agriculture, land use/sustainability, nutrition and health. Teachers and students would also have access to contextualised resources to enhance their learning.

SNEP Components

Action 1: Create SNEP Taskforce

Action 2: Undertake activities outlined

<table>
<thead>
<tr>
<th>Curriculum</th>
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<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum review</td>
<td>Curriculum review: map existing nutrition related content and review with a focus on integrating gardening and nutrition, where possible.</td>
<td>9 months</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO). A new deal for school gardens (FAO).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Curriculum teaching and learning resources</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching and learning resources (adapted from L&amp;T kit)</td>
<td>Resource development: Development of a localised teaching resource pack linked to the curriculum including: learning outcomes, lesson plans (teaching ideas/examples), and general learning resources • Posters • Pamphlets • Factsheets</td>
<td>12 months</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO). A new deal for school gardens (FAO). Setting up and running</td>
</tr>
</tbody>
</table>
## Curriculum teaching and learning resources

<table>
<thead>
<tr>
<th>Focus</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
</table>
| School gardens needs assessment  | • Textbook(s)  
• Media/video  
• Food models (i.e. plastic food)  
Development of a gardening kit (informed by each school’s requirements but likely to include basic gardening equipment (i.e. containers), associated ‘how to use equipment’ information sheets, information sheets on chosen fruits/vegetables).  
Undertake a needs assessment of school gardens in Samoa to identify current school use and requirements (i.e. lack of land – container gardening more suitable, access to equipment, staff capacity). | 9 – 12 months        | Setting up and running a school garden (FAO).  
FAO Needs Assessment tool.       |
Solomon Islands

Summary

SNEP’s have been in use in the Solomon Islands for a period. The HPS framework works alongside the School Health Programme due to effective collaboration between sectors. It is recommended that a SNEP for Solomon Islands be part of the HPS and focus on school gardening (in a form that suits the school site) and includes resource development for teachers to integrate gardening into the nutrition curriculum. It is also recommended that the nutrition curriculum be reviewed at this time and contextual/localised resource kits be developed to assist teachers. This will enhance the confidence of teachers, and the student experience.

SNEP Components

Action 1: Create SNEP Taskforce

Action 2: Undertake activities outlined

<table>
<thead>
<tr>
<th>Curriculum</th>
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<tbody>
<tr>
<td><strong>Curriculum review</strong></td>
<td>Curriculum review: map existing nutrition related content) and review with a focus on integrating more gardening and nutrition, where possible.</td>
<td>12 months</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO). A new deal for school gardens (FAO).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting learning and teaching</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning and teaching resources</strong></td>
<td>Resource development: development of a localised teaching resource pack linked to the curriculum (focus on nutrition/gardening), including; learning outcomes, lesson plans (teaching ideas/examples), and general learning resources:</td>
<td>12 months</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO). A new deal for school gardens (FAO).</td>
</tr>
</tbody>
</table>
## Supporting learning and teaching

<table>
<thead>
<tr>
<th>Focus</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
</table>
| School facilities needs assessment | • Posters  
• Pamphlets  
• Factsheets  
• Textbook(s)  
• Media/video  
• Food models (i.e. plastic food)  

Development of a gardening kit (informed by each school’s requirements, but likely to include basic gardening equipment (i.e. containers), associated ‘how to use equipment’ information sheets, information sheets on chosen fruits/vegetables)  

Undertake a needs assessment of school facilities to identify the equipment needed to integrate nutrition/gardening into the curriculum and provide practical learning opportunities (I.e. what kitchen equipment, gardening equipment is required for the proposed SNEP). | 9 months | Setting up and running a school garden (FAO).  
FAO Needs Assessment document. |
## Tokelau

### Summary

Based on the information that was accessible for this country, it is recommended that a SNEP for Tokelau initially include; a review of nutrition curriculum, and if required development of new curriculum as well as accompanying resources. This may focus on nutrition, and gardening if appropriate.

### SNEP components

#### Action 1. Create SNEP Taskforce

#### Action 2. Undertake activities outlined

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Focus</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum review</td>
<td>Curriculum review: map existing nutrition related content) and review with a focus on integrating more gardening and nutrition, where possible. Redevelopment as required.</td>
<td>12 months</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO). A new deal for school gardens (FAO).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting learning and teaching</th>
<th>Focus</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching and learning resources</td>
<td>Resource development: development of a localised teaching resource pack linked to the curriculum (focus on nutrition/gardening), including; learning outcomes, lesson plans (teaching ideas/examples), and general learning resources:</td>
<td>12 months</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO). A new deal for school gardens (FAO). Setting up and running a school garden (FAO).</td>
<td></td>
</tr>
<tr>
<td>(adapted from L&amp;T kit)</td>
<td>Posters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pamphlets</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Factsheets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Textbook(s)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Media/video</td>
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</tbody>
</table>
## Supporting learning and teaching

<table>
<thead>
<tr>
<th>Focus</th>
<th>Activities</th>
<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Food models (i.e. plastic food)</td>
<td>Development of a gardening kit (informed by each school’s needs, but likely to include basic gardening equipment (i.e. containers), associated ‘how to use equipment’ information sheets, information sheets on chosen fruits/vegetables.</td>
<td>12 months</td>
<td></td>
</tr>
</tbody>
</table>
Tonga

Summary

Curriculum is available to assist teachers to teach students, however teachers and schools face challenges in putting this into practice. For example, limited facilities significantly impact on the ability to teach Home Economics. It is recommended that a SNEP in Tonga supports teaching of the nutrition curriculum through the facilitation of improved facilities. A kitchen facility for each school would provide students with the opportunity to grow, harvest, prepare and consume their own foods. This would also serve as an opportunity to integrate gardening and nutrition into the school curriculum (including food safety), which there is a desire to undertake. This improves the student experience by providing experiential learning and provides teachers with resources.

SNEP Components

Action 1: Create SNEP Taskforce

Action 2: Undertake activities outlined

<table>
<thead>
<tr>
<th>Curriculum</th>
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</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Activities</td>
<td>Indicative timeframe</td>
<td>Chapter/resource reference</td>
</tr>
<tr>
<td>Curriculum review</td>
<td>Curriculum review: map existing nutrition related content) and review with a focus on integrating more gardening and nutrition and where possible across topics (i.e. Food safety).</td>
<td>9 - 12 months</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO). A new deal for school gardens (FAO).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting learning and teaching</th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Activities</td>
<td>Indicative timeframe</td>
<td>Chapter/resource reference</td>
</tr>
<tr>
<td>School facilities needs assessment</td>
<td>Undertake a needs assessment of school facilities to identify the equipment needed to integrate nutrition into the curriculum and provide practical learning opportunities (i.e. what kitchen facilities/equipment, gardening equipment is required for the proposed SNEP).</td>
<td>9 – 12 months</td>
<td>FAO Needs Assessment tool.</td>
</tr>
</tbody>
</table>
## Supporting learning and teaching

<table>
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<tr>
<th>Focus</th>
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<th>Indicative timeframe</th>
<th>Chapter/resource reference</th>
</tr>
</thead>
</table>
| **Learning and teaching resources** | Source requirements so all schools have access to basic cooking and gardening facilities (in a form that suits the school). Support the Mai e Nima team in the continued development of a localised teaching resource pack linked to the nutrition/gardening *including*: learning outcomes, lesson plans (teaching ideas/examples), and general learning resources:  
  - Posters  
  - Pamphlets  
  - Factsheets  
  - Textbook(s)  
  - Media/video  
  - Food models (i.e. plastic food)  
  Development of a gardening kit (informed by each school's requirements but likely to include basic gardening equipment (i.e. containers), associated 'how to use equipment' information sheets, information sheets on chosen fruits/vegetables)  
  *These can all be linked to current resources available.* | 12 months           | *Nutrition education in Primary Schools: A planning guide for curriculum development (FAO).*  
  *A new deal for school gardens (FAO).*  
  *Setting up and running a school garden (FAO).* |
Tuvalu

Summary

Based on the information that was accessible for this country, it is recommended that a SNEP for Tuvalu initially include; a review of nutrition curriculum, and if required development of new curriculum as well as accompanying resources. This may focus on nutrition, and gardening if appropriate.

**SNEP Components**

**Action 1: Create SNEP Taskforce**

**Action 2: Undertake activities outlined**

<table>
<thead>
<tr>
<th>Curriculum</th>
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<tbody>
<tr>
<td><strong>Focus</strong></td>
</tr>
<tr>
<td>Curriculum review</td>
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</tbody>
</table>

<table>
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<tr>
<th>Supporting learning and teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focus</strong></td>
</tr>
<tr>
<td>Teaching and learning resources</td>
</tr>
</tbody>
</table>
### Supporting learning and teaching

<table>
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<tr>
<th>Focus</th>
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<th>Chapter/resource reference</th>
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<tbody>
<tr>
<td></td>
<td>• Media/video</td>
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<tr>
<td></td>
<td>• Food models (i.e. plastic food)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Development of a gardening kit (informed by each school’s needs, but likely to include basic gardening equipment (i.e. containers), associated ‘how to use equipment’ information sheets, information sheets on chosen fruits/vegetables.</td>
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</tbody>
</table>
Vanuatu

Summary

Curriculum is available to assist teachers to teach students, however schools are still faced with broader challenges. There is an existing Health Promoting Schools Committee which has representatives from Ministry of Agriculture, Education, Health and the WHO. A uniformed approach and strategy to integrate efforts at a national level would be greatly beneficial in Vanuatu. The current Health Promoting Schools program could be the umbrella program to lead such an SNEP approach. It is recommended that the Health Promoting Schools program additionally act as a platform to support the School Garden project by integrating gardening lessons into the curriculum and distribute physical resources to support teaching (i.e. activity booklets, food models, posters, pamphlets, media [i.e. documentaries,]). This SNEP would assist Vanuatu to integrate gardening into the school curriculum, therefore providing an opportunity to teach students about agriculture, land use/sustainability, nutrition and health, and building on current projects. Teachers and students would also have access to contextualised resources to enhance their learning.

SNEP Components

Action 1. Create SNEP Taskforce – this could be based on the current Health Promoting Schools Committee

Action 2. Undertake activities outlined

<table>
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<tr>
<th>Curriculum</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Curriculum review</td>
<td>Curriculum review: map existing nutrition related content and review with a focus on integrating more gardening and nutrition, where possible. Redevelopment as required.</td>
<td>6 months</td>
<td>Nutrition education in Primary Schools: A planning guide for curriculum development (FAO). A new deal for school gardens (FAO).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting learning and teaching</th>
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<th>Indicative timeframe</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Teaching and learning resources</td>
<td>Resource development: development of a localised teaching resource pack linked to</td>
<td>12 months</td>
<td>Nutrition education in Primary Schools: A</td>
<td></td>
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</tbody>
</table>
## Supporting learning and teaching

<table>
<thead>
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<th>Activities</th>
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</table>
| (adapted from L&T kit) | the curriculum (focus on nutrition/gardening including; learning outcomes, lesson plans (teaching ideas/examples), and general learning resources:  
- Posters  
- Pamphlets  
- Factsheets  
- Textbook(s)  
- Media/video  
- Food models (i.e. plastic food)  
Development of a gardening kit (informed by each school’s requirements but likely to include basic gardening equipment (i.e. containers), associated ‘how to use equipment’ information sheets, information sheets on chosen fruits/vegetables).  
Undertake a needs assessment of school facilities to identify the equipment needed to integrate nutrition/gardening into the curriculum and provide practical learning opportunities (i.e. what kitchen equipment, gardening equipment is required for the proposed SNEP). | 9 months | planning guide for curriculum development (FAO).  
A new deal for school gardens (FAO).  
Setting up and running a school garden (FAO).  
FAO Needs Assessment tool. |
Appendix G. Key information and resources that may be useful for SNEP in the Pacific

Additional information related to discussion and recommendations

Regional SNEP stakeholder network

- The SNEP stakeholder network can provide an avenue to share, collaborate and acknowledge good practice, as well as advocate for improved policy and support for SNEP and the school environment (i.e. school food).
- Membership of the SNEP is open to stakeholders involved or interested in SNEP.
- The SNEP stakeholder network is integrated within an existing network, with a recommendation for this to be within the SPC Pacific Diets group or Pacific ECHO. SPC has existing relationships with all countries included in this project, and an Education division.
- The SNEP stakeholder network is led by a committee comprising of one SNEP/HPS taskforce member from each member country to ensure all views are represented, and to assist with communication.
- The regional network is supported with an online platform (website). It is suggested that this online platform is supported by FAO and based on the framework of the FAO Global Forum on Food Security and Nutrition “FSN Forum” which is an online platform for multi-stakeholder dialogue on food security facilitated by FAO’s Agricultural Development Economics Division (ESA). This FSN forum allows registered members and other stakeholders to engage in policy dialogue and knowledge sharing on food security and nutrition both globally and in targeted geographic areas (taken from the FSN forum website - http://www.fao.org/fsnforum/resources). This framework could be adapted to develop a Regional (Pacific or Asia/Pacific) forum on School Food and Nutrition Education.
- FAO could provide additional support through the provision of technical assistance (e.g. Nutrition, Food Systems, Agriculture) for each stage of the regional and local SNEP.
- Funding is sourced to provide an opportunity for stakeholders to attend an annual conference to present and discuss SNEP, and to network. This could be a standalone event, or incorporated with another Regional FAO event, or related conference i.e. Nutrition Society of Australia, New Zealand Nutrition Foundation, World Public Health Association.
The formal regional SNEP stakeholder network is monitored throughout the pilot trial and evaluated after 12 months of use (member surveys, analytics).

The formal regional SNEP stakeholder network promotes a SNEP awareness day once per annum.

**Pacific generic L&T kit**

A generic Teaching and Learning (T&L) resource kit could be developed and provided to countries to assist with activities outlined in county specific recommendations (i.e. curriculum review).

- The generic L&T resource kit provides;
  - A process that can be used for curriculum review/redesign (aimed at the SNEP/HPS taskforce), and
  - Developed resources which can then be contextualised for use by teachers and students
- A scoping study of curriculum materials (i.e. Activity planners for Science subjects) used by all 14 countries should be undertaken to collate existing resources and assess what may be incorporated into the L&T kit.
- It is suggested that the L&T includes the following resources;
  - A copy of the FAO *Nutrition Education in Primary Schools – A planning guide for curriculum development*
  - *Generic learning materials (competencies/benchmarks, learning outcomes, lesson plans, activity outlines, guide to aligning learning outcomes with learning experiences and assessment)*
  - A *Pacific nutrition textbook for primary level (will need development and publication)*
  - A *Pacific nutrition textbook for secondary level (will need development and publication)*
  - *Practical guidelines for the integration of gardening into the school curriculum*
  - *Other useful information in provided in Appendix F.*
- The development of curriculum and the L&T kit is guided by sound pedagogical principles including; building on existing knowledge, experiential activities, explicit links to
assessment, memorable experiences, interaction/peer learning, self-responsibility and activities that are appropriate for culture, age, gender.

### Formal and informal training modules

A series of training and professional development modules are developed for teachers, parents and community members.

- **Three variants of a training/professional development modules are developed as follows:**
  - A formal qualification for teachers, i.e. a diploma or recognised short course in food, nutrition and health. This could be developed and provided by a partnership of a Pacific based University or tertiary provider and an Australian/New Zealand based University or tertiary provider already delivering a nutrition qualification. The inclusion of a local University or provider would ensure that the cultural aspects of the content, and application of this in the local setting are addressed, while an external University or provider could assist with existing frameworks, materials and resourcing.
  - The formal training modules are designed to be provided as a blended learning experience (i.e. a combination of online and in-classroom activities) to accommodate various geographical locations.
  - An informal training module for teachers with a focus on basic nutrition knowledge, basic nutrition skills, gardening and simple tips for teaching food and nutrition (using the SNEP L&T pack)
  - Adapted from the informal teachers’ module, an informal training module for parents/caregivers/community members is developed with a focus on basic nutrition knowledge, basic nutrition skills, gardening, cooking and food safety.
  - The informal training modules are designed to be either provided online (allowing individual progression), or to be in a workshop setting (for groups). *The online version could be hosted and delivered on the SNEP regional network platform (Recommendation 1).*

- **The training options are evaluated (metrics, student outcomes).**
Other useful resources:


